

PERSONALITY
AND WILL

AVELING

CONTEMPORARY LIBRARY OF PSYCHOLOGY

THE CONTEMPORARY LIBRARY OF PSYCHOLOGY

GENERAL EDITOR: F. AVELING, D.LIT., D.SC., PH.D.

PERSONALITY AND WILL

7840

PERSONALITY AND WILL

by

FRANCIS AVELING

M.C., D.LIT., D.SC., PH.D.

CARPENTER MEDALLIST, UNIVERSITY OF LONDON,
AGRÉGÉ DE L'INSTITUT SUPÉRIEUR DE PHILOSOPHIE (LOUVAIN),
UNIVERSITY READER IN PSYCHOLOGY, UNIVERSITY OF LONDON



London
NISBET & CO. LTD.

Cambridge
AT THE UNIVERSITY PRESS



GENERAL INTRODUCTION

The Contemporary Library of Psychology has been planned to meet what is felt to be a need alike of the student and of the large and growing public who take a keen and intelligent interest in the subject. In common with all other sciences, Psychology is continually enlarging its boundaries by the discovery of fresh facts, the construction of hypotheses to explain them, and the verification of the hypotheses in experimental conditions. Unlike those of the other sciences, however, the claim of which to acceptance has long been established, its principal achievements are of comparatively recent origin. No doubt many of its problems are as old as philosophy itself; but their ancient solutions were of a highly speculative character, and it is only since the application of scientific method to the data of mental life that it has been possible for Psychology to take its place within the ranks of the empirical and experimental sciences.

Its scientific progress, however, has since then been astonishingly rapid; so rapid, indeed, that it has not failed to be accompanied by certain dangers incidental to speedy growth from infancy to adolescence. There have been the dangers, not always successfully avoided, of non-observation and of mal-observation, of hasty generalisation from

insufficient data, of immature and faulty method, of imperfect experimental technique, and the like.

Even now, when all these have in large measure been overcome, and an incomparable method devised by which psychological data may be treated mathematically, there are still numbers of divergent schools each claiming to be the sole genuine representative of the science. This is in the main, if not entirely, due to the fact that workers have laboured more or less independently in separate and even isolated areas within the psychological domain. Some have specialised in the abnormalities of mind, and from their clinical observations have derived a general theory which they then extended to cover mentality as a whole. In this general theory the emphasis is upon the emotional character of mental life, and especially upon the dynamic nature of the Unconscious. Others, interested in animal and human behaviour rather than in the mental processes themselves, have found consciousness a superfluity for purposes of explanation, and have stressed a few native reaction-patterns as the basis upon which all behaviour is built up. Others, again, have occupied themselves with mental processes as these are actually observed to occur, and have devised experimental means for their investigation. And so on.

A consequence of this divergence of interest, especially when the several views to which it leads are expounded in

text-books and manuals, and above all in summary expositions intended for more popular consumption, is that the reader is apt to form a one-sided and entirely misleading conception of Psychology. He may become an ardent psycho-analyst, a keen behaviourist, a formalist, a purist, or what not, as the case may be. But, while there is no doubt much truth in all these systems, which in point of fact considerably supplement one another, there is still in most of them a great deal that is of the nature of assumption and over-generalisation. The literature, moreover, of late years has grown to such an enormous extent that it is almost impossible for any one person to master it, and so to gain for himself a comprehensive and accurate perspective of contemporary Psychology in so far as this science is definitely and systematically established.

The plan of The Contemporary Library of Psychology has been drawn up with a view to presenting such a perspective in a popular way, but at the same time without any loss of scientific accuracy. Each volume to be included in it will deal with a special and definite topic which is capable of independent treatment as a single chapter of Psychology. Though this plan inevitably entails a certain amount of overlapping, since no one volume will take for granted what has been set forth in another, and certain principles are of necessity common to all, overlapping will be restricted to a

minimum. The Series will, it is hoped, embrace all the major topics of the science, including those of Comparative, Abnormal and Applied Psychology. In this way each volume will be complete in itself; while the Library as a whole will cover the entire field of Psychology.

With this aim in view, it is confidently hoped that it will prove to be of real service both to the student and to the general reader.

F. A.

ACKNOWLEDGMENTS

In publishing *Personality and Will*, I wish to acknowledge two long outstanding debts of gratitude to former teachers; the one, Professor C. Spearman, F.R.S., of the University of London, the other Professor A. Michotte of the University of Louvain. The latter many years ago first aroused my interest in the experimental treatment of problems of the will; and the former, in his doctrine of creative noegenesis, placed in my hands what proved to be a solvent for many of the puzzles and perplexities which the experimental work still left unsolved. While introspection revealed the self in action as resolving and choosing, it could not account for the remoter motives or values in virtue of which voluntary resolutions are taken or choices made. Noegenesis can render an account of the mental occurrence of remote and even ultimate values as motives for the will; and thus makes plain the essential distinction between its function and that of impulsive and indeliberate activities.

I wish to thank Professor Spearman also, as well as Mr R. J. Bartlett, M.Sc., and my wife, for their kindness in reading the typescript of the book and for their valuable criticisms and suggestions; and Dr H. T. Flint for very helpful assistance in connection with the compression into a few words of what I have said with regard to the conclusions of mathematical physics. Finally, I have again to

acknowledge my indebtedness to Mr W. J. Messer, M.A., M.Sc., to whom I wish to express my grateful thanks for compiling the Index.

F. A.

KING'S COLLEGE,
LONDON.

January, 1931.

~~Ed~~
 26
 Ed
 106

TABLE OF CONTENTS

Chapter I	General Setting of the Problems	page 1
II	Pre-scientific Period	25
III	Transition to Science : I	42
IV	Transition to Science : II	56
V	Experimental Investigations	79
VI	Instinct and its Immediate Derivatives	104
VII	Sentiments and Values.	126
VIII	Character and Temperament	148
IX	The Self or Person	170
X	Freedom and Determinism	189
XI	The Nature of Personality	209
	Index	243

PERSONALITY AND WILL

CHAPTER I

GENERAL SETTING OF THE PROBLEMS

¶ I. SOME MEANINGS OF PERSONALITY. It is a distinguishing mark, indeed the distinguishing mark of human beings that they are self-conscious; and in more than one system of philosophy this mark has been taken to be the chief characteristic and indication of personality. A person is a self-conscious being—*natura sui conscia*. It is precisely because the self enters essentially into his consciousness that a man is said to be a person, or to have personality. Moreover, the self of which one is conscious, the self-centre of reference for all individual experience, by the very fact of its apprehension, is necessarily known as dynamic or active, and never as static or inert. It is always doing something. As Aquinas remarks, it is known to itself as an existent being only in its acts—its feeling, thinking, and above all willing.

This meaning of the term, however, is far removed from that of common modern usage. Personality popularly does not signify that which all persons possess in common, whether self-consciousness, intelligence, or moral feeling. It means, rather, that in which one person differs from another. To be a personality means to stand out above the rank and file in one or more respects. It means to display

some character in an eminent degree; or to possess a combination of qualities sufficiently striking to be worth notice. Thus we commonly say of a man that he is a strong, compelling, dominant, magnetic personality or the like; or, if he lacks these qualities, we label him as weak, vacillating, unstable, ineffectual or submissive. It is again worth noting here that the adjectives used in this connection refer mainly to qualities of will. While, it is true, the terms are sometimes employed, we do not usually speak of emotional or intellectual personalities.

A third usage of the term has come into prominence of more recent years, both in technical literature and in ordinary speech. It is now quite common to speak of split-off, dual, multiple, or alternating personalities, in respect of certain pathological phenomena, mostly connected with memory and overt behaviour, displayed by one and the same individual. Short of divorcing the meaning of the abstract term personality from that of the concrete person, however, such usage can have little or no real relevance, unless the person himself is held to be also split up, double or multiple. This does not appear to be the belief of most of those who employ the expressions; and we must accordingly suppose that they intend to signify by them some accidental aspects, rather than the substantial reality, of the individuals whose cases they report. It is one and the same individual who displays many "personalities". None the less, even in these pathological cases, the dynamic aspect of personality, whether conational or volitional, appears always to be the point emphasised. The phe-

nomena" of dissociation are seen to be most closely connected with the will-characters, taken in a large sense, of the patients.

It is clear that in all these three usages the will is considered to be most intimately connected with the personality; and if excursion were made into a wider field of philosophical and psychological speculation, this same fact would be even more amply corroborated.

II. 2. PLAN OF THE PRESENT BOOK. It is the purpose of the present volume to investigate the nature of will and personality; to assert and, if need be, to reassert much that seems to have been left out of account in recent works on psychology; and thereby to attempt to fill a gap that exists in systematic presentations of the science. In order to fulfil this purpose a certain amount of familiar background will need sketching in, and a brief account of the historical development of the subject will also be necessary. Some speculation will inevitably occur in connection with the experimental data to be advanced in support of the views maintained; but the reader will, it is hoped, easily be able to separate the facts from theory, and in the light of the former to judge of the value of the latter for himself.

III. 3. PROBLEMS. Since in philosophy, psychology, and even in popular estimation, the will is thus seen to be closely bound up with personality, our first task will be to examine the common belief in the existence of a human power called the will, and the conviction of responsibility for thoughts

and actions which depend upon its activity. This is the starting point for a number of most interesting problems which will suggest themselves to the reader. Are we ourselves the cause of all or any of our actions? In how far is the normal man or woman, the child, the criminal, the lunatic, the idiot, really if at all responsible? Of recent years the plea of insanity is not the only one heard in criminal courts for acquittal, or at least mitigation of sentence. Milder forms of neurosis are urged as well as psychoses in extenuation of crime, and frequently with success. Even the irresistible carrying out of post-hypnotic suggestion has formed the basis of defence pleadings. The medical expert is heard as well as counsel, and the psychologist gives evidence together with the alienist.

In one notorious case a few years back two youths were sentenced, not to the electric chair but to imprisonment only, for the murder of a comrade in circumstances of the most appalling and revolting kind. The weight of evidence seems to show that, though abnormally perverted, neither was insane. How far did perversion abrogate responsibility? In another case a wife and her paramour were hanged for the murder of the woman's husband. There was clearly an intrigue between them which ended in the husband's death. But the interesting point is the state of the woman's mind. From the evidence, it appears certain that she was living in a world of unreality which she had created and woven round the person of her lover. It was a world of dreams, but more real to her than the real world itself. Her mind was a maze of passion, love, infatuation, hatred, sex.

How far was she, whether actual murderess or instigator of the crime, in fact responsible for it? And where, in any case, can the line between normality and abnormality, sanity and insanity, responsibility and irresponsibility, be drawn? These are practical questions, of immense social interest; not merely theoretical ones. And though in detail they go beyond the scope of this book, yet the conclusions we shall reach here will help us to find answers for them. Those answers must be discovered in the first instance, however, in an examination of the normal, and even commonplace facts of our every-day conscious life; and it is, accordingly, to these facts that we shall immediately direct our attention.

¶ 4. POPULAR DISTINCTION BETWEEN VOLUNTARY AND INVOLUNTARY. The distinction popularly drawn between voluntary thought and action on the one hand, and involuntary action and thought on the other, is both spontaneous and universal. Apart from certain physical and physiological processes over which a man believes he has and can have no control, relatively simple movements, as well as complicated forms of behaviour involving many co-ordinated movements, occur; and these are sometimes purposively intended and sometimes not. The same thing happens when a sporadic idea, when a train of thought in which one idea follows on another in some definite sequence and order, come to mind; for either of these may be consciously willed or else may arise quite independently of one's willing. A person feels himself to be the master of the actions he himself purposes and carries into execution, and

of the thoughts he consciously entertains; he acknowledges responsibility for them. But he feels no such mastery over what seems to happen independently of his purpose and intention; nor does he acknowledge any responsibility for it.

This distinction spontaneously drawn by each one of us is embodied in the social consciousness of the race as well as in the personal consciousness of the individual; and, though not equivalent to the distinction between right and wrong, it marks off the boundary that separates strictly moral thought and action from what is merely a-moral. Actions and thoughts which we hold to be praiseworthy, blameworthy or morally indifferent lie within the sphere of the voluntary alone. Those which are wholly involuntary cannot properly be classed in any moral category whatever.

The distinction is thus seen to lie, not only at the root of one's own personal conscience, but at that also of all systems of social morality, all codes of positive law, and all forms of institutional religion. It is only in the form of judgements of right and wrong that conscience can have any meaning. It is only in reference to actions and thoughts which are within one's power that ethical standards or maxims are relevant, or legal sanctions justifiable, or religious cults and practices worth while.

¶ 5. INTUITION. One's insight into the difference between what is voluntary and what is involuntary is not the result of teaching or tradition, as the acceptance of distinctions between what is right and what is wrong may be. Though

he may have to be taught social and moral codes, even the child knows this by intuition. It is a personal discovery on the part of every individual, who must make it for himself before any teaching could have effect. No one can tell another what it is to experience the difference, any more than a man gifted with sight could explain to a blind man what it is to see. Details of the discovery may possibly be filled in later on, and finer shades may be added to the first rough personal sketch, both by teaching and tradition. But the original discovery that there is a difference between what a man can help and what he cannot help, whether in thought or action, is the necessary foundation for any edifice which either further personal experience or extraneous teaching can build. The recognition of the distinction between moral and a-moral action, accordingly, is a spontaneous mental act arising in immediate experience; and it may, indeed it does, suffice for the most profound personal conviction, and thereby at the same time provide support for the maxims of social ethics, the sanctions of law, and the practices of religion. Its very spontaneity and universality warrant for it the utmost respect and constitute a *prima facie* claim to truth-value for it.

¶ 6. CHALLENGE TO DETERMINISM. None the less, it sets problems for science of a very insistent kind. For the fact of the conviction that there is such a thing as moral action appears to challenge the postulate of determinism. The sciences have reached their present eminence precisely in virtue of the postulates that every event is rigidly deter-

mined by an antecedent event, and that between such events there obtains an exact quantitative equivalence. If we know, as in very many cases we do, the invariable sequences between physical causes and effects, we are able in practice to bring about desired events by making use of the causes which lead to them. The whole appeal and success of applied science, including applied psychology, depends upon this fact. Not without justification, accordingly, determinism is already firmly entrenched among the axioms of physical science. Nevertheless, while involuntary thought and action, as we conceive them, may easily be fitted into the deterministic scheme, the fact that this does not seem possible in respect of voluntary activities constitutes a serious problem. For not only do we conceive these activities to be free; we actually experience them as lying within our own power. There seems, accordingly, to be not only a challenge but even a contradiction between the personal conviction and the scientific postulates.

¶ 7. RECONCILIATION. It must be the task of an all-embracing science to examine this apparent contradiction and to give some explanation of it. In any final accountancy every fact will necessarily be entered in the scientific balance-sheet; and, if it is a fact, voluntary activity with all that it implies must have its place there like any other. In common with all other presumed facts it must be taken at its face value in the first instance, and be discounted only if and when, on the balance being drawn, there is clear evidence that it is spurious. There exists as yet no such all-embracing

science, if we exclude the speculations of philosophy, in respect of which a balance-sheet can be prepared. In the meantime each one of the partial sciences of Nature or of Mind is working on its own separate account, entering the particular facts with which it deals in columns headed by its own particular categories and concepts, and analysing them according to its own particular canons. Many of the categories as well as the canons with which these sciences work are common property of them all, for there is considerable overlapping between them; but there are others peculiar to each of the individual sciences concerned. It is not the facts themselves, but the exclusive concepts and postulates, which raise misunderstandings and contradictions in science.

¶ 8. PRINCIPLES OF PSYCHOLOGY. Nowhere is this more evident than in Psychology, the subject matter of which, unlike that of other sciences, consists of facts of immediate experience. Since these are mental rather than physical facts, their analysis must proceed upon psychological lines; concepts appropriate to them must be employed and suitable canons formulated. While the psychologist, accordingly, recognises, within their own sphere and for the purposes for which they are applied, the value of the categories of the physical sciences, he will discover that some of them are clearly inadequate and inapplicable to psychological data. He will find that others, though applicable, need a modification before they can be accepted as adequate. Others, again, he will observe, are simply non-existent as

far as the physical sciences are concerned. Examples of the first kind embrace such concepts as those of mass or motion, space and sometimes even time, which cannot be applied to mental events. One cannot measure thought or emotion with a yard-stick. Cases of the second kind include notions like that of causality, in so far as it is limited to antecedence and consequence of events together with quantitative equivalence only. To this exceedingly abstract concept of physical science the psychologist will add, in so far as his immediate personal experience warrants, the further notion of positive power. He knows what a cause is because he experiences that he is one. Instances of the third kind are to be found in such concepts as that of conscious purpose which is admitted in no one of the physical sciences whatever. Nevertheless, here again, so far as warranted by his personal experience, the psychologist will accept the notion of intentional teleology, or conscious striving towards ends or goals, as being of equal validity with that of efficient causation.

¶ 9. DYNAMIC ASPECT. It will be evident that the psychological nature of the data to be reviewed and analysed in this book must necessarily define the concepts to be employed. Whatever meaning we may ultimately come to attach to the term, we are to be occupied with an examination of the human will; as to which there is general agreement that it belongs to the active side or aspect of human nature. We shall be interested not in static, but in dynamic phenomena only. Indeed, we have no direct experience

whatever of the persons whose wills we are to study, except in so far as they are active. It is only in activity that personality is expressed. We shall accordingly be obliged to employ the categories of action in the analysis we are to make; and, as introduction to this analysis, we shall need a brief classification of the different kinds of activity displayed by human beings.

¶ 10. IMMANENCE AND TRANSIENCE. The general notion of action is one which, strictly speaking, cannot be defined; though we know by intimate personal experience what an action is, for we are not merely spectators of actions, but ourselves doers of them, or real agents. Moreover, for the same reason of personal experience, we represent action in general as being either transient or immanent; that is, we consider certain actions as if they passed over from one entity to another. We represent, for instance, the impact of one billiard ball upon another as inducing a movement in the second ball and bringing about cessation of movement in the first. But we consider other actions as both originating and terminating within one and the same entity. For example, the thought of a desirable experience may lead to the actual desire of the experience in question within the individual person. All mechanical actions, and those that can be reduced to them, are of the former kind; their causes and effects are conceived by us to be two distinct entities. Vital actions occurring within an organism, on the other hand, may be said to be immanent; since from the point of view of its organic unity such actions both originate and

terminate within it. This sort of immanence, none-the less, is imperfect; since, from another point of view, these same actions can be considered as transient, one organ causing effects in another as if they were in fact separate and separable entities. It is only when we consider mental actions that we discover examples of perfectly immanent action, both cause and effect being one and the same entity, and the action originating and terminating within it. Thus, as we shall have occasion to consider, an act of will may be wholly immanent; while the same act, directed to the execution of some bodily movement, may also clearly be transient. A voluntary muscle may contract under the influence of volition; and the contraction of the muscle may cause the displacement of some other physical object in space.

¶ 11. INTRA-ORGANIC AND MENTAL ACTIVITY. Since we are here chiefly interested in action only in so far as it is the expression of our own inner life as conscious organisms, we may for the moment neglect transient action so far as it may have its repercussion in the outer world and limit our consideration to intra-organic activities. We have seen that these may be distinguished as relatively transient and strictly immanent forms. But, further, each of these classes may be subdivided into those of conscious and unconscious activity. Many movements of the body occur unconsciously, such as certain native and conditioned reflexes (contraction of iris) as well as automatic movements (peristalsis). Of others (knee-jerk or heart-beat) we may or may not be cognisant. A large number of random, imitative

and habitual movements also may occur without our knowing it. On the other hand, deliberately willed movements are always, at least to some extent, consciously apprehended.

A similar subdivision is to be recognised in respect of strictly immanent activities. We have every good reason to believe that mental processes of an unconscious kind occur (active dispositions, wishes, complexes); and we are directly aware of the occurrence of fully conscious processes (ideas, impulses, desires, purposes and will-acts). Many of these intra-organic physical movements and mental activities occurring, whether consciously or unconsciously, might be called impersonal, in the sense that we never attribute them to the profound self as to their source. They do not, so to speak, belong to the person, but merely happen to it, and sometimes even in spite of it. On the other hand, there are both bodily and mental processes which we as certainly do ascribe to our self as their real cause. Conspicuous among these processes are movements intentionally exerted by the so-called voluntary muscles, and deliberate acts of attention, recollection, thinking and all similar purposive mental activities.

It is the peculiarity of all consciously volitional processes that they are never isolated, but always occur in a series of recognisable character or "form". The voluntary movement of a limb, the voluntary heightening in clearness of an object to which attention is paid or the recall of a previous experience, are always experienced as final terms in a sequence into which at least two other conscious events necessarily enter. These are the anticipation of an end to

be attained and the intention that this goal shall be realised. All consciously volitional actions of whatever sort are aimed at a known goal, the realisation of which is purposed by the agent. Both knowing and intending or purposing enter into the conscious process of willing. For, as we experience it, this process is not merely a desire such as may rise in our minds in an absolutely fatal and impersonal way, but a desire made personal by acceptance or rejection on our own part, to the "fiat" or "non-fiat" of which the execution of the action seems to be due.¹ Both inhibition and facilitation of desire are in this way voluntary acts; and in this respect both may be consciously personal matters.

¶ 12. THE UNCONSCIOUS. To say this might appear to run counter to the view held by many psychologists that the real centre of gravity of volition and of personality lies deep down in the unexplored layers of the Unconscious, which can be tapped only, if even then, by the appropriate methods of hypnotism or deep analysis. Or, if the Unconscious be held to be a physical entity rather than a mental one, it might appear to traverse the view that personality and will are nothing more in effect than integrations of determinate neural processes. This is not the place to discuss the philosophical question of the nature of the Unconscious, whether it be matter or mind. But it may be pointed out that then only would the analysis made above clash with the views in question if it led us to deny that any unconscious activity could be volitional, or that there were no sense in

¹ Cf. *infra*, p. 76.

which the person could be conceived to be unconscious. No such denial has been made; although by inference from the analysis of consciously volitional action we might have concluded that unconscious volition, if it should occur, must be similar in pattern or "form" to that which we consciously know. We cannot speculate as to the nature or activities of the Unconscious, which by definition is not open to inspection, except on analogy with the Conscious which we directly observe. If, accordingly, there be such a thing as unconscious willing, as there certainly seems to be unconscious thinking, feeling and striving, we must conceive it on the lines of conscious willing. It will consist in purposeful though unconscious aiming towards a goal to be realised. And if there be unconscious personality, or an unconscious aspect of personality, this also must be conceived on the lines of personality as consciously known.

Furthermore, just as we have been obliged to distinguish among conscious events those which we attribute to the self as responsible agent and those which we do not, so we should at least expect to discover a like, though not necessarily identical, distinction among the events of the Unconscious. In common with conscious processes, unconscious activities will come to be distinguished as personal or impersonal.

¶ 13. THE SELF: BODY AND MIND. In the foregoing superficial analysis of the phenomena of intra-organic action we have already found support for the unreflective spontaneous belief that activities of the will are intimately connected

with the self as entering into consciousness. Voluntary action appears to be essentially bound up with persons. In the same way as we have made an analysis of actions from the point of view of the immediate distinctions we are led to draw between them, we may now with advantage make a rough preliminary analysis of the self or person as consciously experienced.

This self, which from the very nature of the case must for each one of us be a personal and altogether incommunicable experience, reveals its being to us in several ways. In the first place, in so far as we perceive it by way of the senses, it is a body located both spatially and temporally with relation to other bodies in an external world. In common with them we observe it to be subject to all the physical laws of that world; and as a living organism it is subject to physiological laws as well. Moreover, as a conscious organism, it must be regarded as related also to a further set of laws of mental order. In common with all other bodies of whatever kind, none the less, it essentially shares the character of appearing to us as an objective item in an objective world; though, for each one of us, it is in an altogether peculiar fashion his own body, and never just "a body" sensibly perceived. Nevertheless, as we have seen, many phenomena of intra-organic action are observed which are not in the full sense of the word personal. They are activities of our bodies; but they are not ours.

In the second place, so far as we are able to perceive our self by way of introspection, it seems immediately to be a centre or focus of all that is felt, known or actively per-

formed by us in a universe which includes the self's body. Our body is centred upon it, and appears to be acted upon by it, in exactly the same way as any other object felt, known or desired. It is precisely this fact that enables, and even necessitates us to regard the self as something other than the merely physical organism. If a distinction is to be drawn between them, it is indicated by the fact that it is I who perceive, imagine, think, feel and act, and not my body which does any one of these things. It would be as inexact to say "my cortex thinks" or "my basal ganglia feel emotion" as to say "my eye sees" or "my ear hears". Nevertheless, here again, as we have seen, many of the phenomena attributed to the self thus introspected are quite impersonal in character. They are mental activities; but they are processes independent of us.

¶ 14. BODIES. The distinction just drawn enables us to pass on to a further consideration. When we perceive our bodies we apprehend them as objects of sense; that is, whatever they may be in themselves, they appear to us as extended, coloured, resistant, and the like. In other words, our perceived bodies consist of a group of related sensorial phenomena, irreducible to a second group which is distinguished from the first as being mental. The first (bodily) group is characterised by a certain kind of unity and continuity, in much the same way as are the phenomena of the other bodies which go to make up the physical world. But such unity and continuity as they display is only relative; for common experience acquaints us with many changes

that take place in our bodily phenomena as we advance through life.

¶ 15. MINDS. In like manner, when we observe our minds we discover a number of related phenomena, comparable with those of the body but of a quite different order. They are not sensorial, though many of them are intimately connected with sensorial events. Such phenomena, for instance, are perceiving, remembering, suffering emotion, desiring, and the like. Like the bodily phenomena studied by anatomists and physiologists, these mental phenomena have been studied by psychologists, who have attempted to discover in them that unity and continuity which, as they assert, are the prime characters of conscious life. Some sort of unity and continuity, no doubt, can be asserted of the constant stream of mental processes which flows ceaselessly whenever we are conscious, just as some sort of continuity and unity is to be found in the bodily phenomena already considered. Nevertheless, looking upon the mental stream as a whole, we in fact discover in it a fundamental multiplicity rather than an essential unity; and we also find many unbridged gaps in its apparent continuity.

¶ 16. UNITY AND CONTINUITY OF CONSCIOUSNESS. Such unity as there may be in the conscious stream depends upon its continuity. Perceptions, desires, memories, impulses, and so on, are not all one and the same thing; they cannot be reduced to any one single element. Several perceptions or memories may occur at the same moment; several

impulses may co-exist, and even clash with one another. All these may come together in the general eddying current of consciousness, and so may constitute an accidental unity at any one time; or they may succeed one upon another in such a way as to constitute an uninterrupted sequence. But it does not from this follow that there is any substantial unity established among these several processes. Moreover, even the continuity, the uninterrupted sequence, is not always apparent. For we are not conscious when we swoon, or undergo deep anaesthesia, or even when we simply fall into a profound and dreamless sleep.

¶ 17. PHENOMENALISM. These facts have always been a source of great difficulty to the psychologists who regard the "mind" as a collection of conscious states or processes. For, in this view, not only is it impossible to conceive how the various processes are welded together into any real unity; it is also impossible to explain how there can be any real continuity between conscious processes which are separated by temporal intervals of unconsciousness. To meet the first objection William James bravely suggested that each passing thought might bequeath its innermost being to the thought immediately succeeding it. But in the end even he came to feel that, in the sense in which he was employing the term, there might be no such thing as "consciousness" at all. With regard to the second objection, James also makes a suggestion that "the broken edges of the sentient life may meet and merge over the gap, much as the feelings of space of the opposite margins of the

'blind spot' meet and merge over that objective interruption of the sensitiveness of the eye"; such consciousness, he says, "feels unbroken". And so, in his well-known example of Peter and Paul, Peter's consciousness when he awakes in the same bed as Paul, never "makes connection" with Paul's previous stream of thought, but only and always with his own. This is undoubtedly a fact; but why should it be so?

The question leads us to a further examination of the alleged nature of consciousness as consisting merely of phenomenal processes and states. When we introspect we do not merely find the so-called mental objects, whether perceived or remembered, together with the subjective processes of perception and remembering; we do not only find desires and impulses, affective feelings and the like. We find also something holding them together; a self who contemplates or recalls the objects, who is pleased or displeased, who is actuated by desire, moved by impulse, and so forth. Such continuity and unity as may be asserted of the stream of conscious processes belongs to its several parts only because of the consciousness of the profound self as a unitary being, to which the processes successively belong, of which they are essentially the acts. All the insurmountable difficulties raised by treating the processes of consciousness as if they were substantial realities are overcome if they are recognised for what in fact they are, no more than phases, which may or may not be continuous in time, in the activity of a unique enduring personal reality.

¶ 18. SUBSTANTIALITY OF SELF. But this solution of the difficulty seems to require something more than an introspective appeal to the fullest form of self-knowledge, or intuition; since even this apparently fails us at times, as when in anaesthesia or sleep. Are we conscious then of self? And, if not, how can continuity be one of the chief marks of consciousness? We have seen that interruptions occur in the flow of the conscious stream. Must we appeal to some form of sub-conscious or unconscious process to fill in the blanks and secure continuity? No such appeal is necessary. Whereas, in attempting to account for any kind of unity in consciousness regarded as a stream of mental processes, continuity had to be invoked, here it is the other way about. Continuity is secured by self-intuition, always identically and essentially the same. It is one and the same self to which the discontinuous stream belongs; and it is immediately known to us as being self-identical. There is no greater difficulty in Peter bridging the gulf of sleep by accepting, as he must, the over-night segment of the stream as well as this morning's for his own, than there is in accepting any two of its contiguous moments as his. For any two such moments, in spite of the fact of continuity, may be utterly different and discontinuous in nature. We do not consider Peter to be more than one unitary being because he may be undisturbed and placid at one moment and in a violent rage at the next. Nor does Peter fail to recognise himself in those two states, totally different though nearly all the features, indeed all the prominent features, of his stream of consciousness may be in each of them. For Peter

7181

29.7.93



240 51 F

is a unitary being and is conscious of himself as such. There is only one Peter in the midst of all his experience. The proof of continuity and unity does not require that full self-awareness should never be interrupted; it requires merely that whenever we are aware of self we should be aware of it as essentially identical in nature, and that we should refer to it all our experiences. Self-awareness does not create or constitute self or person; it is an indication of selfhood, a consequence of personality.

¶ 19. CLEARNESS AND MENTAL ENERGY. More, however, can be argued from the available data than this. Whatever the knowing capacity of each one of us may be, it is evident that it is limited in extent at any given moment. We can perceive only a very few objects at the same time. We can recall only a very few past experiences at once. Moreover, the items we do perceive or recall vary in clearness, rising and falling above a threshold in such a way that they can be graded in orders of intensity and determinateness. Thus there are those of which we are fully aware, others which display less and less clearness, until we come to those of which we are scarcely, if at all, cognisant. There are good reasons for theoretically prolonging this gradation below the threshold into a region of subconsciousness, and for holding that such items, though still determinate, may fail to be cognised by us because of their lack of intensity. Though they would then still remain mental items, they would no longer be conscious ones.

Knowing, however, is not the sole form of consciousness;

feeling, conation and willing are to be reckoned with as well. But these aspects of consciousness also are not all equally emphasised at any given moment. Sometimes we know objects without overmuch feeling or conation and in the entire absence of willing. Sometimes we feel so deeply that little clear knowing is possible, and all action or striving is paralysed. Sometimes we act impulsively without thought or feeling or will. In retrospect it appears that stress on any one aspect is accompanied by diminution of emphasis on the others. It seems that what available energy there is must be shared between the various competitors, increase in one direction inevitably resulting in decrease elsewhere.

¶ 20. SUBCONSCIOUS CONATION. We might expect conation to be active in the absence of clear knowing, deliberate willing, or determinate feeling. And there is much cogent evidence, though obviously it cannot be of a direct character, that this is indeed the case. In dream states, for instance, conative factors determine the progress of the dream. In dreamless sleep the major conative dispositions seem always to be awake. The sleeping mother, insensible to stimuli of far greater intensity, responds to the feeble cry of her child. Many people can set themselves to wake at a given hour, in much the same way as hypnotised subjects can be set to perform post-hypnotic actions. We shall see later that these vigilant conative dispositions fall into two classes; those which have been set up by previous voluntary decisions (*e.g.*, intentional waking at a given hour), and those which operate independently of conscious volition (*e.g.*,

wishes which determine dream-sequences, or discomforts which account for attitudinal postures during sleep or even for waking). All, however, have this character in common, that they exhibit the mark of purpose which is characteristic of will. They are aimed at goals the value of which we can appreciate, even if we ourselves have no power over the aiming.

These facts, linking once again the profound, unconscious self with the unconscious will, yield a clue to be followed up in later chapters. In the meantime, we may end with a quotation from the writings of an outstanding contemporary psychologist. "The self is first known as wish or will, and probably that always remains the core of anyone's conception of himself."¹

¹ R. S. Woodworth; *Psychology, A Study of Mental Life*, London, 1922.

CHAPTER II

PROBLEMS OF WILL AND PERSONALITY: PRE-SCIENTIFIC PERIOD

¶ I. KNOWLEDGE ORIGINATES IN EXPERIENCE. In the present chapter we shall have to consider early speculations with regard to personality and will which developed before any scientific investigation of the problems had been attempted. These speculations were evolved in a matrix of thought which included many cosmological, ethical and theological elements. But all the elements alike, no matter how primitively conceived or more fully elaborated, enter into the structure of knowledge according to definite psychological laws. For our present purpose it is only necessary to allude to these briefly. It may be laid down as a general principle which admits of no exception whatever, that all the data for belief, even if this be of the most elaborate philosophical or scientific character, are directly derived by us from our own immediate empirical experience, or else are in some quite definite and ascertainable way related to it. Such data are either explicitly contained in experience, and may be abstracted from it, as, for instance, the quality "red", the quantity "extended" or the relation "equal to"; or else it can be shown that they have been reached by way of relational inference from items of experience, as, for example, the notions "not-red", or "inextended", "potentiality", the "ether" or "Fate". The inferential process here is not a

logical but a psychological one; and the notions to which it gives rise are not already contained within experience, and accordingly cannot be abstracted from it in any way. They are reached by a process of applying relations found in experience to other items which are also discoverable there.

¶ 2. THOUGHT OBJECTS MAY BE UNREAL. It does not, of course, follow that notions of this latter kind correspond to any external reality; that any Fate, for instance, exists other than our notion of it, or that there is any ether other than the working and explanatory concept of which we make use in science. The point here made is that we do in fact derive all our notions from our experience in one or other of these two ways; and, moreover, that we do this to a large extent, if not entirely, in a perfectly spontaneous manner. We have already reached our notions of either kind long before we come to reflect upon them, or upon the way in which we came by them. Together the concrete items of experience and the abstract notions constitute our knowledge. But knowledge, even in its inchoate stage is not a mere collection of unrelated items. It displays at least the beginnings of systematisation. The highest kind of knowledge is the most systematised, giving evidence of mature reflection, comparison and synthesis; but some degree of system is there from the outset.

¶ 3. CONTRADICTIONS WITHIN KNOWLEDGE. In its early stages, however, both in the case of the individual and of the race, incompatible fragments of system come together

in the growing synthesis. This is so because the items and notions related in knowledge arise only partly in a direct way from experience. They arise also, as we have just seen, by the application of this or that relation to directly apprehended items; and different relations so applied generate different correlates. If these are simultaneously grasped in the same context, they may give rise to inconsistencies and even to contradictions.

II. 4. EXAMPLE OF ANIMISM. Thus, to take an example, animism is a quite spontaneous and natural belief among primitive peoples and in the case of young children, who uncritically (and even unwittingly) apply the relation of similarity in respect of their own activities to objects in the external world and thus generate the notion that these objects are animated, and possess feelings, purposes and powers like their own.

But animism, to keep to the one example, is inconsistent with the belief that Nature is governed by a blind Fate, or by causal laws of an impersonal kind. And when this belief, reached by a similar process of education, arises in the primitive or childish mind a manifest contradiction would be apparent if the two were simultaneously and reflectively grasped in the same context. Generally this does not happen. The two beliefs are held apart, though often entertained alternatively. The "pre-logical" stage of development of the savage may be a useful concept from the point of view of theory; but no known savages consistently behave in an exclusively pre-logical manner. In respect of

animism and natural law, for instance, savages may on different occasions either be frankly animists or shrewdly determinists. Even more striking is this in the case of the development of the young child, whose animism gradually becomes displaced from all objects, including those that are inanimate and inert, to objects including those that are inanimate but not inert, and then finally to animate objects only. The developing child, however, like the savage slips freely from one concept to the other during a certain phase in his evolution. Indeed, most civilised adults are often animists in their unguarded moments. A similar state of affairs may also be instanced even in the case of men of science and philosophers. Antinomies have been reached in science and philosophy, to say nothing of theology, by processes identical in kind with those which lead the savage or the child both to animism and determinism. The sophisticated man, however, realises that contradictions exist; whereas the child and the savage do not. They have not yet reflected. It is on reflection only that discrepancies and contradictions appear. Then, and then only, do problems arise.

¶ 5. INFLUENCE OF RELIGIOUS SPECULATION. It has generally been assumed that problems concerning our subject of will and personality had their origin in religious speculation. If what is meant is that the full-blown problems were formulated under the stress of theological pressure, this is doubtless to some extent true, especially with regard to personality, a topic largely agitated in trinitarian and

christological controversies. But it is not true if, as we must, we look upon the earlier religious belief as a product of normal psychological development. The theological beliefs, reached by the mental processes we have described, as well as those relating to human personality and will, more probably developed side by side, as it were in watertight compartments, just as the earlier physical speculations of the Greeks remained and developed side by side with the later ethical ones. In both cases the half reflective and wholly spontaneous conclusions, once they were envisaged together, demanded reconciliation.

II. 6. PHYSICS AND ETHICS. As a matter of history, the problems we have to consider arose from the conflict of physical and ethical opinion. Just as there was an antithesis between the dogmas of the Ionics and the Eleatics relating to Nature, so relating to man there was an antithesis between the notions of the essentially fluid character of positive laws and the conceptual background of rigid and changeless right which alone could give to them any ethical meaning. In both cases the former was a matter of observation, the latter a concept constructed from it. Physically, being could not be conceived to be in the perpetual flux in which it appeared, and at the same time to be also changeless as it was represented in idea. Morally, action could not be required to be adapted to a shifting and meaningless set of prescriptions and laws, and at the same time also measured by an essentially unchanging moral standard.

The problem of the will arose in a setting of ethical postulates already reached spontaneously; just as the problem of Nature had already arisen in a setting of ontology derived, on the one hand, from the immediate experience of change, and, on the other, from the indisputable fact that we come to regard the essences of things as absolutely immutable. Heracleitos and Parmenides represent the two views on the physical side; the experience of flux on the one hand and the notion of changeless Being derived from that experience by way of relations on the other. Theories of reconciliation of the antinomy were advanced by Plato and by Aristotle. The Sophists and Socrates represent the clash of moral views on the other side. Again Plato and Aristotle act in the role of conciliators.

¶ 7. PROBLEM OF FREEDOM. The problem of the will, as here raised, was that of freedom, a problem which has always since remained the outstanding problem of ethics. But this problem, although it arose because of apparent antinomies within ethics itself, and between ethics and physics, is in fact a problem of psychology. It might have arisen in any sphere of thought in which the spontaneously elaborated results of mental processes came into systematic contact and, by their contradiction, called for reconciliation.

The underlying problem here is clearly not that of freedom in any physical, but only in a moral sense. There is no question as to whether a man can act according to his nature, but only questions as to how he acts when acting naturally, and as to what that nature is. There is no psycho-

logical problem of man-made or God-made laws, but only a problem as to the law of action proper to human beings.

¶ 8. SOCRATIC INTELLECTUALISM. In its original treatment by Socrates, the intimate psychological persuasion of the voluntary character of right- and wrongdoing was brought into relation with his doctrine of intellectualism. The will, in his opinion, is entirely dependent upon intellectual insight. Wrong actions, accordingly, are due to lack of right knowledge; for a man can only act according to such knowledge as he possesses; and if his knowledge is wrong and clouded by desire, he cannot act freely. The evildoer has no freedom; only the wise man is free. This view, making freedom depend upon the correctness of insight in respect of action, as it does, is essentially an ethical one. It leaves altogether untouched the question of freedom of choice; and, though the psychological fact enters into its construction, the psychological problem does not itself emerge. Indeed, it is a curious example of the ways in which knowledge arises that the persuasion of responsibility could have entered into the Socratic consideration at all.

¶ 9. PLATO ON FREE WILL. The psychological point was more clearly envisaged by Plato, who definitely provides his own solution of the problem by unequivocally asserting that the will is free to choose between alternatives. Nevertheless, in common with his master, Plato held that the

evildoer is not ethically free. One may come to lose one's moral freedom as the result of the exercise of one's psychological freedom of choice.

¶ 10. ETHICS OF ARISTOTLE. Still more clearly was the problem discussed by Aristotle, who divorced it entirely from the intellectualism of Socrates in order to treat it on the basis of personal experience. In the *Ethics* Aristotle is concerned with the regulation of feelings and actions in which virtue is involved. His first task, accordingly, is to distinguish involuntary action as being due to external compulsion or, in certain cases, to ignorance; compulsion, in the sense that the agent contributes nothing to the action; ignorance, in the sense that the concrete details in which any given action consists (the end, the means and the circumstances) must be known in order that the act should be voluntary. The discussion of what it is that renders a man's action involuntary leads immediately to a consideration of the character attaching to all voluntary acts. It is "that their origin is in the person himself and that their particular relations should be fully known". But since Aristotle's psychological analysis aims at supporting the ethical conception of accountability for action, it cannot end here; for there are many actions which are voluntary in the sense indicated, and yet for which a man is not held ethically to be responsible. Actions proceeding from lust or anger are cases in point. These are voluntary since they originate in the person himself and with knowledge; but they are not free. Similarly wish and opinion are ruled out.

Moral choice alone remains both voluntary and free, as the psychological basis upon which ethical imputability is grounded. Freedom of choice is a voluntary process "which has passed through a stage of previous deliberation". The fact that such deliberation, or reflection both upon ends and means, is possible is the condition upon which voluntary acts may be also free ones. And, as a fact, Aristotle remarks "we do deliberate respecting such practical matters as are in our power".

Most interesting in Aristotle's analysis is his distinction between wish and moral choice, especially because of the third reason he gives for making it. Wish cannot be moral choice because it "has for its object the end rather, but moral choice the means to the end". This is scarcely a psychological argument; nevertheless on purely introspective grounds it may be said that wish and choice are clearly distinguishable as different mental processes.

Though Aristotle does not raise this point, we can reconstruct the entire mental machinery of human action as viewed by him. Originating in a wish (voluntary though not free), deliberation is followed by decision, and this in turn by "grasping by our will in accordance with the results of our deliberation" (voluntary and free). We may assimilate lust and anger, as well as all similar motions, to wish, and hold that any desire is voluntary since it originates in the person and with knowledge. The ends proposed in anger, lust and the like can be reached by means between which we are free to choose; or, better, they can themselves be regarded as means toward some further end to which

they are related by reason, and thus can themselves be freely chosen or rejected. There is no reason why we should not distinguish them, as Aristotle distinguishes desire, into two classes, the "irrational" and the "rational" (or better perhaps the "rationalised"). The further problem raised by Aristotle, as to whether the object of wish is a real good or only an apparent one, need not detain us. It is a purely metaphysical and ethical, not a psychological problem. As a matter of fact Aristotle meets it by drawing a distinction between what is abstractly and objectively good and what appeals concretely and subjectively as good to each individual. It will be interesting to note how, in the subsequent development of the problem of human freedom within the system of Aristotle's doctrine, it became profoundly influenced by the Christian conception of God, and here became definitely related to personality also.

¶ II. THE STOICS. But already, on account of their theological doctrine of materialistic pantheism, the Stoics had been constrained to deny freedom in any psychological sense to the actions of men. They had, it is true, asserted imputability for deeds done, but only in so far as the Universal Spirit, disseminating and differentiating itself in each individual, is held to be the source of human actions. In their doctrine universal determinism and human freedom came to constitute an antinomy which was ultimately solved in the direction of the former metaphysical theory. Indeed, having reached the idea of Fate by way of the mental processes already described and holding fast to it, the

incompatible experience of freedom had in some way to be modified or go by the board.

¶ 12. THE EPICUREANS. The same antinomy had been solved by the Epicureans, on the other hand, in precisely the contrary direction. Since determinism and the persuasion of freedom could not be reconciled in a single context, Epicurus posited self-determination as the necessary ethical datum borrowed from psychology, and was in consequence constrained to deny universal determinism. Freedom and chance for him became two instances of uncaused events. In this way the intimate experience of the freedom of at least some human acts had become a metaphysical doctrine extending to events occurring in the external world, which was conceived on analogy with the human mind. Even the physical atoms voluntarily, *i.e.*, causelessly, deviate from their straight lines of fall. In this conception, accordingly, rigid causality had already ceased to be regarded as a universal principle.

¶ 13. INFLUENCE OF CHRISTIAN THOUGHT ON CONCEPTION OF PERSONALITY. But in Christianity the antinomy enters upon a new phase, in which personality comes explicitly to be involved in the problem of the will. This was due to the development of the Christian conception of God. Now this conception, like all others not immediately derived from experience, is reached by the application of abstract relations of various sorts to concrete items of immediate experience.

It would be impossible here to trace in full detail the origin of the notion; but a brief outline may be given as to

how it arose. In the first place, applying the relation of similarity to the experience of the self as efficient cause, an idea is generated which seems to provide an explanation of the changes within experience for which we do not apprehend ourselves as the real causes. This idea, it is true, takes us no further than to the position of animism or anthropomorphism. It may be, and indeed was, applied to many items of experience in relation one to another as well as to transexperiential reality. A variant of the notion may also be generated by the application of the same relation of similarity to the experience of physical movement. The complication of this idea by the denial of imperfections within it, again due to relations derived from experience, ultimately leads to the assertion of absolute perfection and uniqueness; and these attributes are further asserted on the strength of two other operations of a noegenetic sort. These are, firstly, the application of the relation of similarity to the experience of one's own personal unity in respect of causation; and, secondly, the extending of the relation of more or less perfect to generate the notion of absolute perfection. Complicated with the last process is that by which the notion of necessity of being comes to be added to those already reached. There is in experience no necessary being other than ourself; and we are only necessary in the sense that experientially we *de facto* exist. The notion of necessity none the less can be evolved from that experience, as well as reached by applying the relation of opposition to the contingency of those items of experience which begin and end, or even which simply change.

The foregoing account of the origin of the idea of God is based upon the chief classical "arguments" commonly advanced in philosophic proof of his existence. But there is one other to which demonstrative value is usually denied, but which illustrates even better than those considered the mental processes by which the notion is reached. It is the so-called "ontological" argument, and runs as follows: "I have an idea of that than which no greater can be thought. But such a being must actually exist; since, did it not, some actual existent would by the fact of its existence be greater than that than which no greater can be thought". Here the mental process is plain, though it be held to lead to no more than an idea. We can certainly think the "greatest", "most perfect" and the like; and we do this by applying relations to items of our experience which are not "greatest" or "most perfect". We can think something greater than anything we experience. Now, by relating "existence", which we only experience in our own case, to this notion of "greatest" we reach the idea of an existent God, even if there be nothing in reality to correspond to the idea. The point made is that we can explain the origin of the idea in whatever form it comes to rise in our minds by means of the noegenetic principles. The notion of the existence of God (first cause, most perfect being and the like) is derived from our experience of ourselves as existing. Our notion of his nature is reached only by way of analogy and negation. This last statement is borrowed from orthodox teaching. It is also an acceptable psychological account of the origin and development of the notion in question.

In the evolution of the idea of God, regulated as it is by the same fundamental mental processes working upon further and more fully elaborated data, the anthropomorphic character is the first to emerge. It is only gradually that this becomes partially stripped of its all too human implications. The idea becomes spiritualised, omitting the material connotations it originally carried with it, until at length it stands out almost devoid of other content than that of a being whose nature it is to be; who possesses, indeed, all the perfections of all actual and possible beings, but these in no univocal but only an "eminent" way.

Throughout, the notion of God is fashioned on the pattern of oneself; but as the idea becomes more and more refined the pattern becomes less and less obvious, and in the end the relation of exemplar becomes reversed and the self begins to be regarded as in some way patterned upon the notion of God. "We are made in his image and likeness; and this likeness is chiefly in our soul".

¶ 14. REACTIONS BETWEEN SELF-EXPERIENCE AND IDEA OF GOD. The reactions of the original self-experience, always maintained and renewed in its primitive form, with the notion of God in its various phases of evolution, bring about a theoretical recasting of personal experience itself in a metaphysical mould. Nowhere is this more manifest than in respect of personality and will. Originally, God is a person, because man is; but later on he is "eminently" a person, for his personality is identified with his existence. God is a will and an intellect; indeed will and intellect are

one and the same thing in him, for both are identical with his being. God's will is freely omnipotent as his knowledge is omniscient; and omniscience and omnipotence are one and the same thing, for there are no real distinctions to be drawn between the perfections of the deity, or between the deity and his perfections.

The "image and likeness" in man, however, becomes less and less like the exemplar as this refining process in the notion grows more complete. No metaphysical theory can ever completely disregard personal experience. Accordingly, while we regard ourselves as persons because we are unitary, self-conscious and rational beings, we regard ourselves also as possessing, rather than being, an intellect and a will; as compounded of body and soul, substance and accidents, essence and existence, rather than as beings with regard to which these distinctions do not hold good. Further, since God is conceived as the unique necessary being, principally in opposition to the contingent beings of experience, we regard ourselves as utterly dependent upon him, both in respect of the exercise of our activities and of our existence as beings capable of action.

¶ 15. ANTINOMIES. These two conceptions, the one derived mainly from direct experience, the other formed by way of negation and analogy from it, when brought together at once raise new antinomies which constitute problems. How can man be free if God is both omniscient and omnipotent? Will not all his actions be both foreseen and determined from eternity? Moreover, since God is absolutely good, how can evil occur in a world which he has created,

a world that includes man whose actions are often evil? On the other hand, since man is bound to obey a moral law decreed by God, must he not be free in order to obey or to disobey it? What, otherwise, can the meaning of heaven or hell be? Or what, indeed, the meaning of Christianity itself?

¶ 16. AUGUSTINE AND AQUINAS. Into these theological controversies we need not enter, save in so far as they came to shape traditional views with regard to the nature of personality and will. The reflect of the conception of God as Spirit was applied to the personality of man, with the result that personality came to be regarded as something wholly spiritual; as, for instance, by Augustine, "a rational soul making use of an earthly and mortal body"; or, if not this, as by Aquinas, the substance of a rational nature constituted by a spiritual soul. Similarly, it is with regard to the activity of this soul, both for Augustine and Aquinas, that freedom has relevance.

The former makes the will the prime activity of the soul, from the substance of which it is in no way distinguished. The exercise of all the other activities depends upon it; and it is both ethically and psychologically free. Indeed, Augustine's masterly introspective analysis leads him to a wholly psychological and naturalistic theory of human nature. On the other hand, led by theological considerations, Augustine also taught a doctrine of rigid predestination. The two positions seem to be incompatible and contradictory; but in his own mind he reconciled them by holding that, while the will is essentially free, man needs God's grace in order to will ethically. The antinomy, however, persisted throughout the Middle Ages, and still persists to-day.

In opposition to Augustine's voluntarism, Aquinas was an intellectualist, holding that the activity of the will depends upon that of the understanding. For him these are really two distinct powers of the soul; and the will is necessitated to act provided absolute good be presented to it by the cognitive powers. That is to say, man is determined by his very nature towards an end. But he is none the less free in the presence of contingent goods which of themselves are unable to satisfy his will. As with Aristotle, freedom consists in the power of deliberative choice; and this would be impossible were not man determined to an absolute end towards which the alternatives for choice are presented as goods of the nature of more or less adequate means. The view is wholly teleological. The human person, an individual substance constituted by the two internal co-principles, matter and soul, is free only with regard to actions aimed at results which are deficient in the line of complete goodness. The antinomy between human freedom and God's omnipotent omniscience was by Aquinas resolved (perhaps not very happily) on the ground that the latter being timeless does not predetermine man's action.

Throughout the speculation during the Middle Ages and in subsequent times, the antinomy reappears in one form or another; and, though possibly no solution seems entirely satisfactory, the discussion has provided several masterly analyses of conscious experience which have been employed as the bases of metaphysical structure in such solutions as have been advanced.

CHAPTER III

TRANSITION TO SCIENCE: I

¶ I. RECAPITULATION. The student of the history of philosophy must be struck by the exceedingly slow changes which have taken place in systematic human thought, and by the relatively few leading conceptions which have dominated it. The same ancient problems have been raised again and again with slightly different nuances in new settings; and rarely has a stroke of genius or a really new factual discovery thrown any vitally fresh light upon them.

In the previous chapter we have seen how the purely psychological questions of personality and will were treated with ethical or theological implications by some of the early Greek philosophers, ecclesiastical Fathers and mediaeval Scholastics. Always remaining the same, the experiential data were caught up into the meshes of theoretical conclusions derived from quite other than psychological premises; and in both cases the results were similar. There remained always a conflict between the personal and ethical persuasion of freedom and the theoretical assertion of cosmic determinism, the impersonal decree of Fate, or the foreordaining destiny of an omniscient and omnipotent personal God.

With the Greeks this had ended in such contrary doctrines as those of the Stoics and the Epicureans. With the Scholastics, vitally concerned to defend human freedom on religious grounds, the Augustinian and Thomistic theses

ended in several adaptations. Voluntarism came to extreme expression in the doctrine of Henry of Ghent and Scotus. Intellectualism split up into two camps. The Thomists themselves holding fast to predestination, interpreted human freedom in the sense that since the will is essentially free, it is predestined by God to choose freely. The Molinists, stressing freedom rather, held that God concurs in human action and provides the conditions for free choice, well knowing what in those conditions the choice of free agents will be. With the advent of the Reformation, the literal acceptance of the Pauline teaching in respect of sin, grace, providence and predestination led to the Lutheran and Calvinistic dogma in which freedom was denied.

¶ 2. THE RENAISSANCE. The religious Reformation was, however, ushered in by a movement far more comprehensive and widespread in its effects. This was the Renaissance. It was a period of great aesthetic awakening and intellectual ferment, involving vast changes of view as well as of heart. It developed side by side with the final disintegrations of a decadent scholasticism, and broke the ground for a re-casting of old problems in new settings in which as never before empirical and experimental research, unhampered by tradition, was to have its place. As to the heavy weight of religious authority, that no doubt still had some influence upon the birth of natural philosophy and science; but a death-blow was given to that influence by the speedily following revolt against ecclesiastical dominance which came from within the Church itself.

The movement was one of transition from the stereotyped forms of later mediaeval philosophy to the modern method of science; and it only came to rest when the standpoint of science was reached.

The end, however, was implicit in the beginning. Even the problems of psychology were to be caught up in the revolution of outlook and method; and the foreshadowing of the emancipation of that science from metaphysics can be discerned in the earliest stages of the scientific movement.

¶ 3. BACON, DESCARTES AND LOCKE. It was Francis Bacon who expressed the desire that the movements of our ideas and the activities of our wills should be treated on a par with all other events by the methods of natural science and explained upon its principles. Bacon's desire heralds the advent of the new method. It is not, however, to him, but to Descartes and Locke, that modern psychology, its problems and their solutions, are in the main tributary. The psychology of Descartes, it is true, consists largely in an *a priori* deduction of conclusions from metaphysical principles; while that of Locke, on the other hand, remains largely empirical throughout. But the conclusions of the former philosopher are in reality based upon the most empirical of observations; the immediate experience, namely, of his own conscious self as active. And for both Descartes and Locke it is to this experience that we must look for evidence towards the solutions of the problems of personality and will.

¶. 4. DESCARTES: CERTAINTY OF SELF-EXISTENCE. The initial position of Descartes is entirely like that of Augustine, though he gives it a twist in an intellectualist direction by regarding the certainty of self-existence as a truth immediately and intuitively given and known rather than as an experience known because immediately lived. The main preoccupation of Descartes was to discover a criterion of truth in general; and his well-known method was one of universal doubt. It was only by making the experience of self a truth that he could find the criterion for which he sought in the clearness and distinctness with which ideas are apprehended. For him, those things are true which are as clear and distinct as self-consciousness is. This is an epistemological principle for Descartes; but for him also it is based upon an essentially psychological fact.

The two problems in which we are interested, as well as their solutions, come to light in the elaboration of the primitive "truth" of self-awareness. Clear and distinct ideas are true ones; obscure and indistinct ideas bear with them no such guarantee of truth. It follows that, while clear and distinct ideas determine our judgement, unclear and indistinct ones cannot compel our assent. With regard to such ideas the mind has the power of freedom of judgement; and in the possession of this power resides the possibility as well as the explanation of error. Moreover, in it also lies the possibility of moral wrongdoing, since this is the evil of self-deception. We are free, accordingly, in respect of matters of which we have no clear and distinct ideas. This is not a complete account of freedom from the

point of view of Descartes. We shall return to it again after considering his doctrine in regard to the nature of personality.

¶ 5. DIVORCE OF BODY AND MIND. Led by the trend of physical science in which the principle of teleology had already been rejected with the greatest success in favour of the principles of mechanics; led also by his own epistemological contrast between consciousness, on the one hand, and external reality, on the other, Descartes conceived a total difference in nature between the mind as a thinking thing and the body as a subject of extension. It is of the essence of all bodies to be extended, located in space and mechanically moved as it is of the essence of each soul to be a conscious being. Bodies, however, as present to minds are thought in two ways. They are apprehended sensibly in a qualitative manner as being coloured, sonorous, odouriferous and the like; but they are also conceived intellectually as being spatial formations subject only to mechanical laws. We perceive as qualities, in fact, what in reality are quantities. The contrast here between perceptual and conceptual knowledge is marked. The reason why it is so stressed, however, is because the outer world is entirely unlike the inner world. We perceive bodies in a psychical manner. We conceive them as they really are in a physical order. Extension is set out over against thought and separated from it by an impenetrable barrier. Body and mind are absolutely irreducible. In treating of purely animal activities as strictly subject to the laws of mechanics,

Descartes extends his doctrine to many human activities also. But, over and above the mechanics of animal life, he asserts the existence of a soul, or thinking substance, in man, which is "joined to" the body and capable of moving it by acts of volition. This soul receives impressions from the body; it judges in their regard; and it directs motions of the body. The phenomena exhibited by man, accordingly, are of a double character. They are either entirely mechanical as are the reflexes; or they are entirely mental as are thoughts, perceptions and volitions. Over and above these sharply distinguished phenomena there are also the passions, which clearly are both bodily and mental in nature. According to this analysis of Descartes the self, or person, is a "thinking thing, that is, a mind or soul or intellect or reason". It is a being "which doubts, understands, affirms, denies, wills, is unwilling, imagines, and also feels"; for these are all ways of thinking, activities proper to the soul. Personality, accordingly, becomes the reality of this thinking and willing being.

Upon this psychological analysis Descartes builds such sketchy ethics as he taught. All the passions, which are composite of bodily and mental features, are reducible to love and hate. When the conscious emotion arises by reason of the physical changes that take place in the body, the soul judges as to their goodness or evil. It loves or it hates. As it is the thinking soul alone that judges of truth or falsehood, so it is that same soul that judges of right and wrong. And it is our moral duty to oppose the unruly passions of the body by a resolute will; for this alone can

liberate us from misery and make us at least relatively happy. The unfettered use of free will in the ordering of our lives and the controlling of our passions is our highest possible human achievement. The core of the philosophy of Descartes lies in the intuition of the self-soul as a thinking reality, stated by him as an evident truth-judgement. It is more than this. Thought has a second dominant form which is free will; and, although reason can never convince us of this, it is a function of the soul which we experience in ourselves as primordial and unanalysable. Soul, thought and will are in fact equivalent. The whole thinking being is realised in every one of its activities. And freedom really means the power of acting in the absence of external constraint upon motives which are rightly understood. For Descartes, accordingly, the person is equally the thinking or the willing soul; and the will is the unlimited freedom in respect of which we are "made in the image of God".

¶ 6. LOCKE: EMPIRICAL PSYCHOLOGY. A still greater influence upon the shaping of an empirical science of psychology is due to Locke, from whom the chief line of development to the present day derives. As far as our problems of will and personality are concerned, their solutions are in Locke's view everywhere dominated by his denial that we have a definite idea of substance. Owing to his conviction that we possess no clear, distinct idea of any such thing whether bodily or spiritual, Locke makes "substances" consist in the aggregate of simple ideas (*e.g.*, qualities, quantities, relations) "considered as united in one thing". He accordingly

rejects the old metaphysical definition of person as the "individual substance of a rational nature" and substitutes for it that of a composite self-consciousness. In all our mental operations we are aware of ourselves operating; and "by this", he says, "every one is to himself that which he calls self". Indeed, for him, consciousness is not merely a sign of, but actually constitutes personal identity. In this point Locke's thought seems to be thoroughly confused; but his statements are plain enough.

In accordance with his view in regard to substance, Locke is concerned to show that identity does not consist in substantial permanence in time, but that there are several kinds of identity which are constituted in various ways in respect of the simple ideas which, as he believes, make up our ideas of substances. Thus identity of mass, whether atomic or molecular, is secured by the permanence of the atoms or their remaining "joined together into the same mass". The identity of vegetable and animal, though in these variation of considerable parcels of matter takes place, is secured by the relatively permanent participation of the same life and organisation. The case is similar in respect of man; for one's idea of "the same man" is not "the idea of a thinking or rational being alone . . . but of a body, so and so shaped, joined to it". This analysis, beginning not with immediate conscious experience but with ideas of bodies in an external world, leaves room for a third kind of identity which is discoverable on reflection. This is the personal identity referred to as constituted of consciousness.

In point of fact it may be urged that personal identity

is in reality the first and the only kind of identity actually experienced by us. The "identity of man", "of animals", "of vegetables" and "of bodies" is a secondary and analogous mental construction based upon this. And Locke himself seems to feel here the difficulty arising from his view of the nature of the idea of substance. For he not only teaches that identity of consciousness makes the same person; he also defines person as "a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places". This definition is substantially identical with the one against which he is arguing throughout.

¶ 7. SENSATIONS AND IDEAS OF REFLECTION. In drawing his distinction between the outer and inner senses Locke points to what he holds to be two original sources of our knowledge, sensation and reflection. An "idea" for him is "the object of the mind when it thinks"; but, coming by way of sensation, the objects are ideas of the world of external sensible things; whereas, coming by way of reflection, they are ideas of the internal operations of the mind itself. From the very outset conscious experience is asserted as being twofold in its nature. It is chiefly knowledge arising by way of reflection (or introspection) which most interests us in connection both with personality and will; for, according to Locke, we find here both passive and active mental operations as objects known to us. These include perception, thinking, doubting, believing, reasoning, knowing and willing. Thus the mind in reflection becomes

conscious of the various thought-processes and of the will-acts. They are given in experience; and, for Locke, they are radically different and belong to different faculties or powers, the Understanding and the Will. The idea of power, then, is an object thought by the mind on reflection.

This notion of power, however, needs further analysis, which is provided by Locke in a consideration of what is meant by and implied in change. He argues that the possibility of the occurrence of a change in anything is twofold; for change is something that is conceived as taking place in a patient and as brought about by an agent. Power, accordingly, is conceived by us as active or passive. And the clearest idea of active power we have is derived from attending to the activities of our own minds. This is a purely psychological account of the derivation of a notion or concept directly from conscious experience, and relates it to the only ground from which it could possibly have sprung. Unless they are innate ideas, such notions as we have, including that of power, freedom, constraint and the like, must have had an origin somewhere. Notions like these have a history in the mind of the individual; and it is the task of the psychologist to trace them to their source, just as much as it is his task to give an account of the genesis of the notions of space or of time, of thinghood or causality. He may have no concern with the validity of the notions in question; but it is clearly his obligation to account for their occurrence.

As we have already seen, Locke denies that we have any clear idea of substance, but only a vague one of some

unknown substrate serving as a support for qualities; and he asserts that the idea of material substance is in no better case than that of spiritual. On his own principles, surely, some psychological account should be given of the notion we certainly frame of ourselves as substantial realities; since, whether there is any truth in it or not, we do conceive ourselves as beings who think and will; that is, as substances characterised by powers. What Locke would appear to be denying seems to be, not this mental construction of the natures of substances from their activities as given in conscious experience, but—a far different matter—that we can directly know the inner nature of substances, or have any clear idea of them, by which we can pretend to differentiate between them without reference to their activities.

¶ 8. FREEDOM. In a long chapter of the *Essay* Locke discusses the whole question of the will under the heading of power. Because the human will is a power he concludes that it is not, but that the individual possessing it is free. A man, he argues, is not free to will; he must will to act or not to act. He is free only to act as he wills. For the will itself is no more than a mental power “to direct the operative faculties of man to motion or rest as far as they depend on such direction”. What is it then, he goes on to enquire, that determines this power? And he answers that it is the mind itself, the agent himself, moved to change by some “uneasiness”, or moved to continue in the same state of rest or action by present satisfaction in it.

Volition, then, is not desire; and Locke explicitly appeals

to introspection in support of this assertion. He writes, "the will or power of volition is conversant about nothing but that particular determination of the mind, whereby, barely by a thought, the mind endeavours to give rise, continuation or stop to any action which it takes to be in its power". Desire, on the other hand, is a craving, and not the final determination of the power in an act of will. As "uneasiness" it is the motive for willing, and so determines the will. Accordingly, it is not, as had been argued, the greatest positive good as present to mind that necessitates the will, but the uneasiness of desire; and the will is naturally determined by the most pressing uneasiness of the moment.

This remarkable analysis is a purely psychological one; and what Locke opposes in refusing to allow that the greatest good moves the will by way of desire is a metaphysico-biological view rather than a psychological one. The two views, however, are not in reality incompatible; and both would seem to be necessary and complementary one to the other for any science of ethics.

Locke, in his psychological treatment of the problem of will, uses the term in its broadest sense as covering actions both instinctive and deliberate; and he makes liberty to lie in the power to suspend the prosecution of any desire. This makes way for consideration; and in this suspense, and weighing the objects of desire one against the other, lies whatever liberty a man has. Our wills are thus held to be determined by our judgements; and in this determinism true personal liberty consists.

Locke's treatment of the topics of personality and will

serves to introduce us to further empirical investigation of the same problems in the following chapters. It definitely shifts the ground of the enquiry from the metaphysical to the empirical level, and demands an account of all the notions we have as to personality, will, freedom and the like on empirical grounds rather than on *a priori* assumptions. He brings us back to an impartial examination of what is actually to be found in consciousness by means of introspection; and this is not the least of the merits of his views with regard to human nature.

¶ 9. RISE OF ASSOCIATIONISM. There is one further point to which allusion must be made here. Locke's distinction between sensation and reflection pointed clearly to bodies and minds, extended and thinking beings, after the manner of Descartes. His substitution of masses of simple ideas for the idea of substance, however, virtually substantialised the simple ideas themselves. Though he does not state the laws of Association nor treat the subject in the now familiar way, his chapter on the Association of Ideas does lead to the notion of elemental ideas becoming associated together to constitute what has been called the "empirical consciousness". This indication was to be fruitful for future development in the Associationist school. It only needed the explicit substantialising of ideas, and that the reference to minds should be dropped, in order that the notion of consciousness should be shifted altogether, and with it the notions of personality and will radically altered. Consciousness would then become the sum total of mental

contents and states. Personality would then consist in a group or cluster of some of these phenomena. And volition would be then explained as consisting in a particular order in time in which the contents and states occur.

With Hume the references in question were as a matter of fact definitely dropped; and mind, accordingly, becomes a tissue of impressions and ideas related to nothing other than themselves. Substantial personality is reduced to a fiction. The self is made to consist in its events. And will is no more than a peculiar sequence of phenomena.

CHAPTER IV

TRANSITION TO SCIENCE: II

¶ 1. TWO STREAMS OF THOUGHT. The two main streams of thought derivative from Descartes and Locke, with tributaries from other high sources of speculation, run side by side, here and there mingling but generally distinct, in immediately subsequent philosophical history. Descartes, Malebranche, Geulincz, Spinoza, together with Leibniz, mark the chief metaphysical stream. Locke, Berkeley, Hartley and Hume are in psychology the principal representatives of the empirical direction. Both currents come together in the mind of Kant to necessitate a re-shaping of philosophy in Criticism. As far as problems concerning personality and will are in question, the metaphysical trend was to emphasise substance and generally, though not always, to assert freedom. This was frequently a source of antinomies. The empirical tendency was increasingly to deny substance as a category applicable either to the material or mental worlds, and by the reduction of all known things to impressions and ideas to do away with causality altogether. The tendency was to make any question of freedom in respect of the will an otiose one.

¶ 2. HUME. This was really the position taken up by Hume, whose "scepticism" laid the foundations for the doctrines of the school of empirical psychology known as Associationism. This school has claimed as its representa-

tives a great number of psychologists almost up to the present day. Hume's own contribution to the development of empiricism consists in an extension of the criticism of the notion of substance which had begun with Locke. Already, in the distinction drawn between the primary and secondary qualities of matter, Locke had credited bodies with extension, solidity and shape; but he had denied to sounds, smells, tastes, colours and the like any existence whatever outside the mind. Only some known properties, accordingly, are real, physical and external; others are not.

Descartes, it will be remembered, drew a similar distinction. We sensibly perceive as qualified what in reality is only quantified. Berkeley had gone a step further than this in his assertion that only thinking spirits really exist. We are certain of the existence of our thoughts and volitions; but the inference that material things other than thoughts also exist is a false one. All the properties of bodies are secondary qualities. The essence of non-thinking beings lies in their being perceived. Neither qualitative nor quantitative properties are real, physical and external.

But Hume's argument extends even further than this. Not only are physical properties in fact no more than complexes of sensations, so that there is no reason for holding that physical bodies exist; psychical properties are to be treated in precisely the same way. Locke's inner sense acquaints us with mental activities, states and qualities; but there is no reason for holding that there is any real self to be active, or to undergo a state. The self is no more than a bundle of perceptions and images. All proper-

ties, whether physical or mental, are "properties" of no underlying thing. They are no more, in point of fact, than impressions and their fainter copies, ideas, associated together in various ways. The custom or habit of experiencing a certain cluster of them constantly conjoined in imagination is the reason why we refer them to a mind, speak of a personality, and believe in a will.

Substance, whether as extension or thought, is thus treated as an empty fiction; and the same line of consideration is applied to causality also. The will, as well as the self, is likewise a fiction. It was Hume's concern to argue against true causes and necessary connections between things, and to assert that our belief in uniformity is no more than a habit of mind brought about by the frequent conjunction of phenomena in experience. We have, accordingly, no knowledge of our will as a cause whether determined or free. It is a mere pretention that we know: he influence of will in our own consciousness of its action, and thus acquire the notion of power or energy. Bodily movements follow, he says, upon the command of the will. Of this we are every moment conscious. But the means by which this is effected we are not conscious of. Neither are we conscious of any energy. We are only aware of the sequence of motions upon will. So again is it with the power of will over our minds in raising up new ideas. We believe that effects follow from the act of willing only because the experience of volition is frequently conjoined with the experience of movement in our bodies or the rise of fresh ideas in our minds. Moreover, the false sensation or experi-

ence even of the liberty of indifference is explained by Hume on similar grounds. We can never free ourselves from the bonds of necessity; for, since nothing but impressions and ideas exists, and since these are regulated by the laws of association, freedom with will and even personality itself become illusions and deceptions.

From the point of view we are taking here Hume's greatest significance lies mainly in two things. In contrast with Locke, whose treatment of the association of ideas leads us to suppose that he looked upon the principle of association as the cause of trains of thought occurring when the synthetic power of the mind was in abeyance, Hume substituted for the mind and its powers bare ideas and their connections. For him, accordingly, mind is in its whole sum and substance not an activity, but simply a collection of impressions and ideas in connections which we believe to be constant because we have previously experienced them to be so. This view not only broke the ground for, but itself is, a thorough-going empirical one. Consciousness is the sum of contents and states, with no reference to, nor implication of, a mind, soul, self or person. Secondly, Hume eviscerates the will of all substantive reality and power. He admits nothing but sequences of outer and inner events. Will thus becomes only a name "for that class of events in which there occurs an observed sequence consisting of the strongest motive as inner event and change of place as outer event".

II. 3. MAINE DE BIRAN. Hume's views were developed on

the Continent in a still more radical form of sensism, from which his principle of subjective (and dynamic) habit was omitted. Whereas habit had been regarded by him as the means whereby mental elements are cemented together as cause and effect, consciousness was now presented as consisting of sensations and ideas with their accompanying feelings alone. These and their associations exhaust the whole of mental life. This development provoked a very remarkable reaction in the philosophy of Maine de Biran, which was entirely based upon the introspective fact that in acts of willing we immediately experience both the activity of the self and the resistance of not-self (body). Voluntary effort reveals the distinction between external and internal experience; and the reflection upon self-activity as the expression of personality gives rise to the notions we frame of substance, cause, force, unity, identity, freedom and the like. Whereas the sensist must interpret mental phenomena in terms of physical external causes, de Biran inverts the order, and interprets the phenomena of physical nature on analogy with the immediate intuition of the active self in its function of willing. Metaphysics, in his view, is thus based upon psychology; but it is a psychology like that of Augustine rather than that of Descartes. Will, rather than thought, is supreme. In identifying the fundamental experience of will with conative effort, however, de Biran obscures the very distinction he was concerned to emphasise between psychology and physiology. As we shall see, the sense of effort appears to be a conative effect of willing rather than to be identified with willing itself. The strongest acts of

will may be absolutely effortless, and yet reveal in the fullest measure the essentially active self to which de Biran called attention as the core of real personality.

It will be seen from the foregoing account of the main streams of psychological thought flowing from Descartes and Locke onwards that, so far as there was a problem of personality, it lay in the nature of the self as a thinking spirit immediately apprehended in experience. The problem of the will was occupied with freedom, and solved in the several ways indicated. The question of personality in the more recent histrionic sense was not raised; and speculation was limited entirely to conscious events and in no way extended to the unconscious.

¶ 4. LEIBNIZ. There was, however, an important tributary stream of speculation, originating in the philosophy of Leibniz and flowing through that of Fichte and of Schopenhauer, from which certain current views of both personality and will derive.

In his theory of the "monads" Leibniz ascribes active force to all substances and endows them all with something akin to feeling and appetite. This is panpsychism. The human soul, as a real being, is thus conceived as a monad, endowed with the power of clear perception as well as having confused perceptions (the form of mental activity peculiar to the animals) and obscure perceptions (the characteristic mental activity of the vegetable kingdom). The monads are infinitesimally graded from the lowest to the highest; but the human soul-monad, together with its

bodily organism, includes an infinite series of lower monads. This theory is put forward to explain the varying degrees of consciousness which are observable within the experience of every individual; for all the monads are held to be conscious activities.

Since all perceptions are, according to Leibniz, self-caused activities, they correspond severally to unconscious impulse, instinct and will, in continuous gradation and connection with one another. The will thus finds its ground in unconscious impulse. It is conditioned by a vague feeling of unrest on the level of obscure perception, by the pleasure-pain couple on the level of confused perception, and by knowledge on the highest level of clear perception. The self-activity of mind is the leading character stressed in this theory; and it is realised in the sphere of conation in these three forms. The relation of clearly conscious willing to unconscious impulse through the instincts is an evident forerunner of the later and current doctrines of the Unconscious. Will thus comes to be regarded as a general activity of which distinctively human volition is a special form.

¶ 5. FICHTE. Fichte may be taken as a link in the chain of thought stretching deviously from Leibniz to Schopenhauer. He presents the conscious self or person as an essentially conative being guided in its otherwise blind striving by ideas. "I ascribe to myself," he writes, "a real active force—a force which produces being, and which is quite different from the mere faculty of ideas. The ideas, or plans, usually called ends or purposes, are not to be con-

sidered, like the ideas of cognition, as after-pictures of something given; they are rather fore-pictures, or exemplars of something which is to be produced. The real force, however, does not lie in them; it exists on its own account, and receives from them only its determinate direction, knowledge looking on, as it were, as a spectator of its action". This force is the person; and the person is a will.

¶ 6. SCHOPENHAUER. Schopenhauer brings the notion of unconscious will to its sharpest expression in philosophy. For him the inner reality of everything is will or teleological activity. Everything moves towards its end. Teleology is manifest in all the activities of Nature, as well in the case of inorganic as in that of organic changes, in instinctive actions and in self-conscious ones. In human beings this teleology or essential striving is determined by abstract conceptions of goals, by plans and maxims, not discoverable in other animals; and it is, moreover, independent of present impressions. For we can conceive of absent goals and strive towards their realisation. All natural forces are thus conceived in psychical terms as tendencies towards ends and therefore as will, on analogy with our own experience of self-striving, immediately given in intuition. But they are conceived as unconscious will, although it may be subordinated to consciousness as in the case of the animals. The doctrine of Schopenhauer works out in a voluntaristic pluralism.

¶ 7. LIVED BUT UNCONSCIOUS ACTIVITY. The whole movement of thought, of which no more than an indication has

here been given, seems to have been an attempt to penetrate by analogy into the nature of lived activity as distinguished from known experience. To be sure, by definition we cannot be directly aware of the Unconscious. It is a notion reached by applying relations of analogy to conscious feeling, knowing and willing; and it is substantiated by a large amount of empirical, if indirect, evidence. But it is a useful concept in explanatory psychology; and, from the empirical point of view, it only has to be shown that it, like many other concepts, has a psychological origin. The fundamental similarity of this conception of the Unconscious with that of recent psychoanalytical theory is sufficiently obvious; and psychoanalysts would claim that their theory is as thoroughly empirical as those of any other of the empirical sciences. Moreover, what is normally uninspectible by ordinary means, and therefore unconscious, can often by appropriate methods be brought within the range of awareness.

¶ 8. **HORMIC PSYCHOLOGY.** The main net results of this line of speculation have been to shift the centre of gravity of personality from the sphere of consciousness to that of the Unconscious, and to reassert the notion of will as that of a general and in itself essentially blind striving, or group of strivings, towards expression. These views become especially evident in recent psychological theory in three principal directions, to be considered more fully in later pages. The first consists in the stress laid upon the instincts as the driving forces of the mind, and the derivation from

them of all forms of human activity. This view locates personality in the organised group of native and acquired dispositions to action displayed in behaviour. Such tendencies are regarded as aiming at the realisation of goals proposed by Nature in the first instance, and thereafter at goals determined by ideal desires, including the moral sentiments, which are built up within the master-sentiment of self-regard. This is a view in which the will becomes personality, or character, in action, so that it expresses the basic unconscious and conscious personality as a whole.

¶ 9. BEHAVIOURISM. The second theory, if consistently worked out, would root personality in the complex co-ordination of bodily reaction mechanisms by which behaviour is regulated in accord with environmental stimuli. It would eliminate consciousness altogether, and do away with will in any intelligible sense of the word.

¶ 10. PSYCHOANALYTIC THEORY. And the third, definitely proposing the unconscious psychic as the source of all motivation and action, would discover personality for the most part in the profoundest depths of the Unconscious as a system of libidinous wishes perpetually striving against the repressing forces, both conscious and unconscious, of social convention and the Super-ego.

¶ 11. POINTS OF TRANSITION. The transition from the philosophical to the scientific treatment of the problems both of Nature and of Mind, of which the latter aspect has

been so briefly indicated, consists mainly in two stages; firstly, the substitution for *a priori* speculation of the interrogation of Nature as a whole, especially by the use of the experimental method; and, secondly, by the growing cleavage of the distinction between phenomena and reality. This cleavage was finally completed by Kant; but its beginning is traceable to Hume, and, further back, to Locke and Descartes.

¶ 12. PHENOMENALISM IN PSYCHOLOGY. It will be remembered that the last named conceived of the bodies which appear to us phenomenally as coloured, sonorous and the like, being in reality only spatial entities subject to the laws of mechanics; while Locke also had drawn the distinction between primary and secondary qualities. This cleavage was still further stressed, both theoretically and in practice, by Comte and the English positivists. What is of chief interest to us in this connection is the fact that, whereas the physical sciences made their great advances from the outset by employing the scientific method, and particularly by the application of mathematics to their data, these sciences never limited themselves to the consideration of phenomena alone. On the contrary, their interest in phenomena was always directed to the discovery of reality. The worlds which physical science has successively in theory presented to us have been worlds of quantified bodies, of molecules and atoms, of protons and electrons and the like. Astronomers, physicists and chemists have never lost their metaphysical interest in Nature; and the

leading physical theories of the present day are striking instances in point of the truth of this statement. Psychology, on the other hand, within the province of which the problems of personality and will fall, lagged far behind physics in applying the scientific method; but apparently it almost at once lost interest in reality and continued to occupy itself mainly with phenomena. The soul, or person, was relegated to the background. Sensations and feelings were personified; and their sum total became consciousness and took the place of the mind. Instead of accounting for empirical phenomena by reference to realities lying behind them, as did the physicists, the psychologists made realities of the empirical phenomena themselves, and were accordingly obliged to explain processes of willing and self-consciousness as being no more than certain arrangements of feelings and sensations. To be sure, this was "scientific" psychology. The psychologists, no less than the physicists, possessed a philosophy and a common sense; but their self-imposed method restricted the science to these arbitrary limits.

Such considerations lead us to the more modern views as to the constitution of personality and the nature of the will; of which we shall examine three.

¶ 13. MODERN ASSOCIATIONISM. The first of these is Associationism, a doctrine closely ancillary to that of Hume, but in which, at any rate since the time of Bain, the role of kinaesthetic sensations and images is greatly emphasised.

In this view both will and personality are best seen

exemplified in acts of choice. And choice is explained in the following way. At the outset of life the individual, making spontaneous, random or instinctive movements, happens to reach a goal which is pleasurable. The baby, for instance, carries a succulent object to his mouth and experiences pleasure. Contiguous association will account for the welding together of the three elements of the experience—idea of goal, idea of pleasure, and idea of the movements by which the goal was originally reached. Thereafter the sight, or even the imagination, of the goal will recall the imagination of the pleasure obtained by its realisation, and will provoke the idea of the movements by which it is reached. These ideas bring about the actual movements, and the imagined goal thus comes to be realised. A postulate here evidently is that the imagination of a movement, or of the pleasure to be gained by executing it, brings the actual movement about. Up to this point there is clearly no question of any choice; though the general description of impulsive “voluntary” movement given shows how choice may come about. For two goals with their severally associated pleasures and movements may be present in imagination at the same time; and neither may pass over into action because of mutual inhibitions. What happens in this case is that other associated ideas or images arise in consciousness and cluster round each of the goal-images so that several constellations come to be formed each of which tends to discharge in action. This process continues until one of the idea-clusters gains prepotence over the others and actually does discharge. A “choice” has then been

made; one of the alternative movements in fact having been carried out. The idea of freedom entering into such experience as this is illusōry. What really happens is no more than a relative strengthening and weakening of the motive forces of ideas. Leaving consciousness out of the question, the whole process might quite well be explained on neural lines. When inhibitions occur between nerve centres tending to discharge nervous energy is drained from other centres in such a manner that one of them comes to be reinforced at the expense of the rest.

But, according to the view we are examining, there is more in the experience of choice than this. While the goal-ideas are held up from discharge by inhibitions, and are being enriched by the association of other ideas to them, those associates which are the most frequent, the images, namely, of our own bodies, always tend to arise in consciousness also. The whole developing process takes place in the following order. Firstly, the goal-ideas with their intimate pleasure and movement associates occur. Then accessory associates, among which the cluster representing the body is prominent, arise. And lastly the action itself takes place. The interposition of the idea, or images, of the body between the goal-idea and its realisation gives rise to the illusory belief that it is *we* who choose. There is a sequence observable in consciousness, but there is no true causality. Will is only an order or grouping of phenomena in a particular way. Consciousness of self or personality is only a cluster of sensations and images, for the most part of kinaesthetic and coenaesthetic origin. Neither

personality nor will in the commonly accepted use of these terms exist. Nothing exists save sensations, images and feelings; and these are enough to account for all mental occurrences whatever, and to explain all our, in fact, illusory beliefs in ourselves and in our wills.

¶ 14. DYNAMISM OF WUNDT. In striking contrast with this associationist view of the mechanism of impressions and ideas by which all mental processes were to be explained is the doctrine which we have next to examine. This is voluntarism, in the form in which it was developed by Wundt. As the psychologist of immediate empirical experience, Wundt finds both personality and will not in clusters of imagery nor in the temporal order in which they occur, but in the dynamic character of the feelings. Unlike the intellectualists, who looked upon ideas as subsistent entities, he considers the contents of experience to be processes without a substrate, interconnected among themselves and in perpetual modification. Of all these processes the most typical one is volition; and under this all affective or feeling processes may, as he says, be subsumed. The feeling of the interconnection of all the psychical experiences of an individual, Wundt teaches, is the Ego. But this self is not, as the associationist maintained, an intellectual idea or mere cluster of images. On the contrary, it is a true feeling brought into being by the feeling of activity which accompanies all volition. In accordance with his general principle of the formation of psychical compounds by the fusion of more elementary processes in

a creative synthesis, Wundt holds that the common sensations and ideas of one's own body, which detach themselves from the rest of consciousness and fuse with the feeling of the Ego, constitute self-consciousness; and he teaches that this self-consciousness, apart from the processes of which it is made up, is no more a reality than is consciousness taken as a whole. The notion is one of an activity without substance. Conscious process *is* activity, and to be conceived as will. From the purely psychological point of view which Wundt adopts in his examination and explanation of empirical experience, the person is in fact a phenomenon of volition, sometimes fusing with the idea of his own body and sometimes not so fused. The volitional feeling of the interconnection of an individual's experience betrays the person. In his later philosophical work Wundt builds upon his psychology a system of metaphysics, in which the world is regarded as a related whole of pure wills, or actualities in interaction.

As far as the will-process itself is concerned, Wundt's analysis of the volitional consciousness is also in striking contrast with that of the associationists. To be sure, both issue in theories explaining will in terms of other mental processes; but the one reduces volition to a peculiar arrangement of cognitive phenomena, whereas the other reduces it to an order of emotional processes.

In Wundt's theory the evolution of the emotional course of consciousness is the capital point; and prevision of the end to be attained by willing is omitted as unessential, since in his view a whole series of "voluntary" acts occur

in which there is no end consciously envisaged. As in the case of self-consciousness, so in that of will use is made of the principle of fusion to explain processes of volition. We begin with the three pairs of elementary feelings, pleasure and unpleasure, excitement and depression, tension and relaxation, any one of which may be aroused by simple stimulation. According to the principle of fusion these may become synthesised in various ways to give rise to compound feelings such as those of activity, decision or realisation; and, as a matter of fact, they are continually undergoing changes of this sort in consciousness. That which constitutes a will-process is a peculiar evolution of the elementary feelings of which the final stage of the emotional course is characteristic. In Wundt's view a will-process may begin in any state of feeling whatever; but it consistently ends in a fusion of the feelings of tension and excitement to constitute a feeling of activity; which feeling in turn is brought to its close in a feeling of relaxation. This evolution of the feelings is typical of voluntary acts; and since it occurs in the case of impulsive acts as well as in those in which the end is preperceived and in acts of choice, all these are to be classed together as acts of will, although they may in other respects differ. The impulsive act, for instance, is one in which there is present to consciousness only one motive (*i.e.*, objective content together with its consequent feeling). Voluntary acts are those in which several motives may be present, but only one dominates consciousness by its clearness; and it is this motive which enters into the general course of the emotional development.

Acts of choice, however, are constituted by the occurrence of several antagonistic motives equally clearly in consciousness, between which a conflict is set up. When such a conscious conflict occurs before the act, we call the process, says Wundt, one of choice, and the act itself is a selective one.

On the basis of his definition of volitional process as characterised by the termination of an emotional evolution it is easy to see how all three forms of "volition" can be reduced to one common type. And if we ask what the simplest case of willing may be, the answer Wundt gives is that it is the simple act of apperception, by which a mental content comes to be most clearly in consciousness. Thus, for him, "volition proves to be the fundamental fact from which arise all those processes which are made up of feelings. In the process of apperception, which is found through psychological analysis to have all the characteristics of a volitional act, we have the direct relation between this fundamental fact of volition and the ideational contents of experience". This quotation sums up Wundt's view. Apperceptive activity is the reality of consciousness; it is will; and it constitutes the person.

C. 15. WILLIAM JAMES' VOLITIONAL ELEMENT. While the two theories just discussed are totally reductive, in the sense that the associationists reduce all will and self to cognitive elements, whereas Wundt reduces them to emotional processes, other theories admit a special phenomenon which characterises volitional acts, and connect this in an

especial manner with personality. To take a fairly typical example of such theories we may consider the view of James, who discusses the self at great length and from many points of view in his "Principles". The upshot of this discussion is "that personality implies the incessant presence of two elements, an objective person, known by a passing subjective Thought and recognised as continuing in time". For these two elements respectively James proposes to use the terms Me and I. Now, in this view, the Me, as far at any rate as James can find it by introspection, consists in the feeling of certain bodily processes occurring mainly within or near the head. This Me is felt or known by an I, which is a judging Thought. But here is a difficulty. Thoughts are perpetually coming and going, rising and passing away. How can the Thought be incessantly present? James puts forward the curious hypothesis that, without in any way being identical with any previous one, the present Thought may "inherit its title", appropriate it to itself together with all it previously owned. James is quite certain that "it is impossible to discover any *verifiable* features in personal identity" not covered in his analysis; and he finds the only obscure point in his hypothesis in the act of "appropriation" by which one Thought takes over its predecessor.

The passing Thought, then, is something of which nothing can be known until it has passed (though James admits it may feel its own existence). It is no object to itself; and accordingly its appropriations of previous Thoughts are more to the Me than to the I. They are more "to the most

intimately felt part of the present Object, the body, and the central adjustments which accompany the act of thinking, in the head" than to the Thought itself. "These are the real nucleus of our personal identity". The empirical person consists in the feeling of the physiological acts of adjustment and execution which are all reducible to reflex types of action. And the judging Thought, the I, is the only thinker.

As to willing, in common with the associationists James finds that voluntary action is superimposed upon involuntary, in the sense that we can never perform an act voluntarily until we have experienced it previously as carried out in an involuntary manner. In this involuntary performance we come to acquire images of goals, of movements by which they were attained, and of satisfactions enjoyed in their attainment. Accordingly for most voluntary actions all that is required is that we should have an anticipatory image of the sensorial consequences of a movement, together with a mental conception made up of the memory images of the actual sensations of the movement itself which will define which special act is to be carried out. Nothing else, James insists, is necessarily to be found in consciousness as the forerunner of all voluntary acts.

So far, there is little difference between this view and that of the associationists. But in James's account of will-acts he distinguishes two cases. Firstly, there is that in which there is no antagonism between several goal-ideas, for only one is present in consciousness; and this develops of itself in the form of an unchecked impulsive movement.

Secondly, there is the case in which several antagonistic goal-ideas are simultaneously present. Here indecision results, and the will intervenes to dispel it. Introspection reveals two phenomena which characterise voluntary intervention of this kind. There is a feeling of effort of attention towards one of the ideas in question; and there is a specific factor of will which James terms a "fiat", consisting in the adoption of, or assent to, the goal-idea chosen. This "fiat" is irreducible to any other phenomenon of consciousness; it is characteristic of volition; and it is unanalysable. Precisely how the "fiat" is related to the effort, or to the bodily Me, or to the passing Thought which is the thinking I, James does not tell us; perhaps because the command of the will, like the passing Thought itself, is felt but not known. None the less in this theory we have a specific will-factor admitted, distinct from ideas, images or affective feelings. And this radically distinguishes it from the two theories previously discussed.

We have thus both reductive and non-reductive theories of the will in fairly recent psychological speculation; and, together with compromises of the two, they pretty well exhaust the subject, if one adds to them behaviouristic theories and those which assert or postulate a real and intrinsically active personality as the source of volition.

¶ 16. CRITICISM. But all the theories examined, with the possible exception of that of Wundt, are pre-experimental and speculative. Even Wundt's early experiments provide scanty foundations for the views he maintains. The

associationists start with a philosophical prejudice and end where they began. Wundt and James break away from the tradition; but there is little more than data derived from occasional, casual and individual introspection beneath the superstructure of theory which they build. James explicitly states that he speaks for himself alone in the introspective accounts and explanations which he gives. No definite experimental procedure was followed in investigating either personality or will. No allowance was made for possible differences in individual types. No statistical treatment of such meagre data as were available was undertaken. Accordingly, like the theological and philosophical speculations which preceded them, these more recent psychological attempts at the construction of theory are hardly scientific, though they prepare the ground better than any previous attempts for the work of scientific investigation. For this copious observation in experimental conditions is necessary. Exact measurement, or, if this is impracticable, the statistical treatment of data by the method of correlation, is required. And, in order that any theory of personality or will should be a valid one, it must be shown that the concepts used in its construction not only square with the statistical conditions and agree with all the data, but also that they are derived directly from immediate experience.

Contemporary psychological investigations on these lines, which throw much light upon our problems, have been proceeding in two main directions to be considered in the following chapters. There is firstly the examination, carried out increasingly in experimental conditions, of

animal and child behaviour. This traces back the development of principles of conduct, as exemplifying will and personality, through character and sentiment formation to the primitive orientations of human nature. It thus shows the relation of volitional to instinctive behaviour. Secondly, there is the direct experimental attack upon problems of volition, resolution and choice in adult human beings; the results of which not only permit a formulation of theory which definitely relates the will to personality, but also enables us to interpret the data of comparative psychology in an intelligible manner. The genetic order of topics thus indicated, proceeding from instinctive dispositions to fully-developed volition, is the natural one to follow; but, since we shall need some of the results of the experimental work for the interpretation of native and derived activities, we shall reverse this order and consider the latter in the first place.

CHAPTER V

EXPERIMENTAL INVESTIGATIONS

¶ 1. TWO LINES OF APPROACH. The preceding chapters have provided an historical setting and cleared the ground for two lines of approach to the scientific investigation of our problems of will and personality. The first is the direct attack upon them by the use of two experimental methods, that of controlled introspection and that of estimates. The second is the indirect attack by way of the observation of animal, child and primitive behaviour, which needs interpretation in the light of introspection. Reserving the second line of consideration for a subsequent chapter, we shall here examine some of the more important work which has been done upon the will and character qualities during the last few years. This will give us a clue to the solution of the problem of personality also; for it has been found experimentally that much of the older speculation was entirely justified in closely relating personality to the activity of the will.

¶ 2. EARLY RESEARCH UPON WILL. Fruitful experimentation upon will-process cannot be said to have been undertaken before the work of Narciss Ach¹ and Albert Michotte.² To be sure, even several decades before, research had been carried out in the laboratory of Wundt upon the so-called

¹ *Ueber die Willenstätigkeit und das Denken*, Göttingen, 1905.

² *Étude expérimental sur le choix volontaire*, Louvain, 1910.

"choice reactions"; but it had led to no serious conclusions. Dewey, Lossky, Dürr and others had also experimented upon the will. None of the researches had, however, yielded data entirely above criticism; for either the voluntary actions studied were simply compared with similar actions carried out under the influence of external stimulation; or they were unusual actions which provoked complications, and thus made introspection almost impossible; or they took so long to perform that introspective reports as to what had occurred during their progress were highly suspect.

The brilliant work already done upon sensation, perception, memory, abstraction and like mental processes was not extended to the emotions and the will at the outset of the experimental period. This was probably due to several influences. Urgent cognitive problems raised by the educationists demanded most of the time of the psychologists. There were obviously apparent difficulties in the way of devising experiments upon the will. Possibly also an unconfessed belief of an entirely popular sort in freedom made it seem rather hopeless to undertake any really scientific investigation of that last stronghold into which freedom had been driven by the ever-increasing encroachment of the scientific method.

II. 3. REQUISITES OF FRUITFUL INVESTIGATION. What was needed was research in which quite simple circumstances could be devised so that acts of will, entirely similar to those occurring in ordinary everyday life could be provoked for observation and analysis. In ordinary life we talk of

resolutions, determinations, choices and the like as acts of will. It was necessary to plan a method by which acts of resolution, determination, choice, and so on could be provoked in the laboratory in standardised conditions, so that the mental processes involved in them could be described and analysed by a considerable number of observers. During the progress of the experiments time measurements could be made, and records taken of various kinds of bodily changes which might occur, such as those of breathing, pulse, or electrical condition of the observer. Later on these objective records could be analysed and related to the subjective reports made by the observers in their introspections. In this way common and constant features, both mental and physical, for all the subjects of the experiments in the acts of resolving or choosing could be noted and correlated.

As has been said, Ach and Michotte were the real pioneers in research of this sort upon the will; but since the publication of *Will-acts and Thought*¹ in 1905, and of the *Experimental Study of Voluntary Choice*¹ in 1910, not only have their original experiments been several times repeated, but further advances in experimentation and technique have also been made.

¶ 4. CRITICISM. It must not be supposed that the work of these and other authors who have carried out research upon the will has been without criticism. On the contrary, it has been thoroughly criticised from several standpoints; and, while certain of the original contentions—such, for instance,

¹ Cf. foot-note, p. 79.

as that a means had been found to measure the strength of the will—have had to be modified, the general conclusions of the researches have stood the test of criticism.

In this way so considerable an experimental literature dealing with the human will has grown up that it will not be possible in this volume to deal with each research in detail or to discuss the criticisms at length. Accordingly, it is proposed to divide the investigations into two groups and treat them globally, emphasising the conclusions common to the authors and indicating points of disagreement where such are of importance.

¶ 5. STRENGTH OF WILL. The first group to be considered comprises researches in which the aim was to investigate and measure the strength of the will. The main problem here was to obtain indications of what occurs in consciousness when an individual is impelled to some thought or action which is in conflict with his sense of duty, or when he is stimulated to behaviour which he deems to be inexpedient. The case is one of the commonest in everyday life. Conflicts of impulses and inclinations with "the will" are perpetually occurring. Sometimes the will gets the upper hand, sometimes the impulse. But what in reality happens? How does one come to dominate the other? What conscious activities do we find in progress during the time that the conflict lasts?

In order to reduce the problem to manageable experimental proportions the investigators attempted to create strong mental tendencies which would come into conflict

with will-acts while the experiments were actually being carried out. This they were able to do by making use of the principle of contiguous association. The observers were made to learn two-syllabled nonsense words by heart until they knew them so well that, when one of the syllables was shown, there was an almost irresistible tendency for the other syllable to come to mind. A mental habit was thus set up, which was the stronger the more frequent had been the repetitions during the learning period. And this habit, like any impulse, was to be pitted against the will.

The will-act itself was secured by giving the observers an instruction to react in a certain way when the syllables were shown to them in an exposure-box; for the acceptance of the instruction—the resolution to react according to its tenour—is what everybody would accept as an act of the will.

C. 6. DETERMINING TENDENCIES. Now it was known that, once they were made, resolutions of this kind set up what Ach had called Determining Tendencies, in virtue of which, even when the original resolution had entirely dropped out of mind, the instruction might still be exactly carried out. Ach argued that he could measure the strength of the will (resolution) by measuring the force of the determining tendency, which was proportional to it, by its power to overcome just so strong an associative tendency as was formed by a definite number of repetitions of the nonsense words. This measure Ach called the Associative Equivalent.

Thus, for instance, if the observers were instructed (*i.e.*,

resolved) to react to the syllable which would be shown to them, not with the associated syllable, but with a rhyme to it, or by reversing its letters, the clash of the two tendencies—determining or volitional, and associative or brute—would provide a measure of the strength of will. This view seemed to be supported by a consideration of the mistakes that were sometimes made in the reactions; the associated syllable, for instance, being given as the reaction word instead of a word rhyming, etc., with the stimulus. After such mistakes the observer made a stronger resolution to react correctly to the syllables, and was then able to do so even though further repetition had made the associative tendency stronger. This seemed to show a stronger conflicting determining tendency, and therefore a stronger will-act.

¶ 7. CHANGE IN EXPERIMENTAL CONDITIONS. But a very slight alteration in the conditions of the experiment shows¹ that as a rule there is more involved in carrying out a resolution to act in a certain way against a difficulty than the determining tendency created by the resolution itself. A further series of experiments very similar to those of Ach established the fact that if the resolution were made beforehand to rhyme the syllables or reverse them, etc., according to the colour in which they were printed (red meaning rhyme; green, reverse; black, alter the vowel; the meaning of these colours having been learned previously), no mistakes whatever occurred, because the associated syllable did not

¹ McCarthy; *The Measurement of Conation*, Chicago, 1926.

come to consciousness at all. But, on the other hand, when unfamiliar nonsense syllables were shown to the observers irregularly interposed with those that had been learned, there was a strong tendency for the associated syllables to rise in consciousness in connection with the latter. Even so, however, they are not necessarily given as the reaction-words. This fact clearly appears to indicate that the direction of attention plays no small part in the whole matter;¹ and that correct reactions are not only due to the previous resolution, but also to concentration of attention upon what has to be done. There is no doubt that resolution to act in a prescribed way in given conditions will bring about the action once the conditions are realised, provided it has not been actually or virtually withdrawn in the meantime. But a virtual, if not an actual withdrawal takes place when attention is riveted upon some other incompatible action.

¶ 8. REACTION-TIMES. The reaction-times for false reactions are in general shorter than those for correct ones. What factor enters in to lengthen these? McCarthy's research shows that it is attention to the task during the reaction period. And Ach himself explains the lengthened reaction-times, and correct responses after a false reaction, as being due to successive attention. This "causes the Subject to be more cautious and also makes the perception of the qualitative meaning of the stimulus to be more

¹ Cf. Selz; *Die experimentelle Untersuchung des Willenaktes*, *Zeit. f. Psy.*, 1911; and Rux; *Beitrag zu der Lehre von der Determination* 1913.

perfect". The upshot is that resolution and attention to the resolution, or a fresh resolution if necessary, are the antecedents of voluntary acts. Even the breaking of habits, so far as these experiments are concerned, is brought about in exactly the same way. They are quickly and automatically broken¹ when the individual attentively applies himself to a course of action antagonistic to them, provided he brings sufficient attention to the task. The difficulty in ordinary life arises from the distracting character and insistent intrusion upon the mind of the habit itself; and this makes it hard to keep attention fixed upon an opposing course of action.

¶ 9. INTROSPECTIVE ANALYSIS OF WILL-ACT. We have seen that there is some reason to criticise the statistical results or the research of Ach; but the introspective analysis of the will-act made by him is particularly fine. He was able to observe exceedingly energetic resolutions which took place at the acceptance of the tasks, and sometimes also during the reaction period itself. His masterly analysis makes it clear that these determinations or resolutions include four factors, or moments. There is, in the first place, a sensorial element which consists in feelings of muscular tension arising in various regions of the body. An awareness of effort is also experienced. There are ideas or thoughts of the task to be carried out, sometimes with inner speech, sometimes in a purely intentional fashion, but always referring to a future activity to be realised. And, finally,

¹ McCarthy; *loc. cit.*

an "actual", or lived, element is discriminable in consciousness. This experience is equivalent to the expression "I truly will"; and it is characteristic. The "future activity to be realised" is in a very special manner bound up with it, for the task is one thought of as to be realised by the "I" who wills. Moreover, this "I" reported by the observers is not merely a thought or concept of the self. It is something directly lived and experienced; and it is this "actual" factor which conditions the future activity of rhyming or what not which the observer resolves then and there to carry out. According to Ach, this last experience is essential to all voluntary decision; for it is always experienced in truly willed acts. And, when it is not experienced, though all the other factors analysed above may be present, the conscious process is not a voluntary one.

¶ 10. AWARENESS OF SELF. This is a highly important and significant fact for the psychology of personality and volition. Ach, it is true, observes "that the self thus reported is not introspectible at the very moment of experiencing it". As the result of a very considerable number of experiments on will-processes among which many similar to those of Ach were repeated in our own laboratory, I am persuaded that the self is both experiencer and experienced at the very moment when the resolution is taken. Be that, however, as it may, the point has definitely been established by these experiments, and corroborated by many others, that the self is in some way very intimately experienced in volitional processes; and that it is experienced as something

over and above the feeling of muscular contraction, or effort, or the thought of the end which is to be brought about by its action. It is this self with which we shall be concerned when we come to deal explicitly with the nature of personality. As we shall see in a moment, the experimental results of this first group of researches are in every respect corroborated by those of the second. But, before passing on to the consideration of these, there is another class of investigation which had best be treated in connection with those to which reference has already been made. I refer to experiments aimed at the investigation of conative control.

C. II. CONATIVE CONTROL. It is clear that the work on decision or resolution already discussed is in fact concerned with the will, for everyone will agree that decisions, resolutions and the like share with choices the position of being what we most definitely mean when we speak of will-acts. But will is not here distinguished from conation in general; and it might seem that what are spoken of as strong or energetic resolutions are in point of fact not to be differentiated from strong or energetic conations, efforts or strivings, which may occur in the absence of any volition whatever. If Ach's analysis is correct, the thought of the end to be attained, together with the sensations of tension and the effort, is to be distinguished from the "I truly will" which is the real characteristic of volition. It is this experienced self willing which initiates the determining tendency and so is the cause of the reaction; but, in itself, the experi-

ence may be quite effortless. The actual willing may be no affair of striving whatever, but a psychological event *sui generis* which merely initiates striving. Several lines of research indicate that this is so; and even Ach's own analysis appears strongly to support it. As we shall see, Michotte's does also.

It needs no research to be persuaded that the intention, say, to move one's arm or to attend to a given problem results in the movement in question or in the more or less stable holding of the problem before the mind. How to explain this may, in the present state of our knowledge, be impossible. We assume a connection of some sort between the antecedents and consequents involved. Now, there may be no effort whatever in intending to do either of these things; but there may be very great effort indeed in actually doing them, for the arm may be impeded from moving by disease or constraint, and the problem may be an obscure and elusive one.

¶ 12. CONTROL OF CONATIONS. Experiments in conative control have shown, however, that it is not the conation which controls but, on the contrary, that it is controlled by some other factor or set of factors. Thus the will to move a limb, or to solve a problem, may seem weaker or stronger because of the amount of effort put forth; but, as James has shown, the sense of effort is always due to actual sensations deriving from some sort of muscular contraction, even if this is not the contraction of the muscles which are believed to be contracting at the moment, as in the case of the locally

anaesthetised patient. The will is there in both cases, distinct from the effort, even when pathological conditions render the ensuing conative effort inoperative.

The extent and amount of control has been the subject of experimental investigation in other directions also, especially in respect of reversible perspectives and after-sensations. It has been found that the normal periods of appearance of one or other of the phases of an ambiguous figure can be altered by willing to hold one of them steady at the expense of the other. And it has been proved¹ also that the will to have and to hold one of a number of fluctuating visual after-sensations results in its temporal predominance over the others in consciousness. In these particularly interesting experiments each eye was stimulated by a separate bar of light, of the same intensity and duration, in such a way that it could be known which of the stimuli was operating in the ensuing after-sensations. The left-eye stimulus gave an after-sensation as a bar inclined 45° outwards from the vertical towards the left, and the right-eye a similar bar inclined towards the right. Together, the after-sensations formed a V-shaped figure. All these normally tended to alternate in a more or less regular fashion, which was ascertained for each observer as his normal rate of oscillation. When, however, in accepting the instruction he resolved "to have and to hold" the right, left, or both eyes' after-sensation, it was found that this resolution had

¹ Messer; *Conative Control*, Thesis in the Library of the University of London. Cf. also Saidullah; *The Influence of Affection on Perception*, *ibid.*

its result in a marked increase in the temporal duration of the particular after-sensation desired. It was even found possible to inhibit to a notable extent all the after-sensations. In these experiments again there were indications of a difference between true will-acts (resolutions "to have and to hold") and feelings of effort (conations); though it was necessary to discriminate both from out a global experience.

What is perhaps even still more interesting in this connection is that, by the use of the psychogalvanometer in these, as well as in the experiments dealing with the measurement of conation and in those in which choice was investigated,¹ an objective indication was discovered of conation itself; and this permitted the carrying out of a further research explicitly planned to investigate the relation between conation and volition.

¶ 13. WILLING DISTINGUISHED FROM STRIVING. All the previous researches had indicated, both introspectively and by pneumograms and galvanometric curves, that between true willing, in the sense of resolution and choice, and striving, or carrying out the operation willed, there was a difference in the kind of mental process. To be sure both willing and striving often occurred together, and so masked one another and were difficult to separate by mental analysis. But the use of the galvanometer placed a precious instrument in our hands by use of which the subjective reports of the difference might be put to an objective test.

¹ Wells; "The Phenomenology of Acts of Choice", *Brit. J. of Psy. Monograph*, 1927.

Already it had been noted that the most marked deflections of the needle occurred when a mental state denominated "alertness" by us was experienced. We were even able to correlate introspective reports of the amount of "alertness" with the amount of deflection in the photographed galvanometer curves. And at first we had believed that this alertness was truly volitional in character. But in the research especially planned to throw light upon this point it was discovered that this is not so. The "strongest", "most intense" and "energetic" volition, in the sense of determination or resolution to carry out a task, may be unaccompanied by any deflection; whereas, according to the difficulty of the task itself, its performance is marked by deflections in the curve.

In this investigation¹ continuous photographs were taken, both by the galvanogram and the tachogram methods simultaneously, of the electrical state of the body while resolutions were made and tasks in accordance with them were performed. The resolutions and the tasks, which were logical and arithmetical operations varying in difficulty, were separated from one another by intervals of time, so that the deflections corresponding to them came at different places on the curves.² Hardly any deflections were shown to occur concomitantly with the resolutions; when they did occur they were small, and could be explained as due to

¹ By Aveling and Bartlett, communicated to the VIII International Congress of Psychology under the title "The Cognitive Indications of the Psychogalvanic Phenomenon".

² Allowance was of course made for the latent period.

the effort made to understand the nature of the instructions. Whereas the deflections corresponding with the actual carrying out of the tasks were considerable, and varied roughly in amount according to the introspectively estimated difficulty of the tasks.

The conclusion accordingly to be drawn, both from the introspective analyses and from the galvanometric curves, is that volition and conation are to be distinguished; and that a volition ensuing even in difficult action may be absolutely effortless. Will is not itself effort, though it may initiate effort even of an extraordinary kind.

¶ 14. CHOICE. The second group of experimental researches to be considered consists of those in which choice was investigated. Here the original work of Michotte¹ was planned to make his observers choose, for good reasons, between two alternative simple arithmetical operations, one of which they had to perform. The numbers which served as a basis for addition or subtraction, multiplication or division, were shown in a card-changer, the falling of the shutter of which engaged the hands of a chronoscope electrically; and as soon as the choice had been made the observers pressed a key by which the hands were again disengaged. This permitted of time measurements to the one-thousandth of a second. The actual arithmetical operations chosen were not, as a matter of fact, carried out, as this would have unduly lengthened the reaction period

¹ *Loc. cit.*

and disturbed the introspection. But it was found unnecessary to perform them in order to secure real choices comparable to those of everyday life; since the mere pressing of the key was found to take on the symbolic value of the calculation itself.

In these experiments, evidently the choice proper could only take place after the appearance of the numbers in the card-changer; but it will be clear in the light of what has already been said that the whole mental process from beginning to end is developed under the influence of the previous resolution to choose which was made when the instruction was accepted.

Further research has been carried out upon much the same general lines, in which the observers made choices between pairs of liquids which they had to drink.¹ These liquids ranged from very pleasant to very nasty; and in preparation for the research they had been learned by the observers together with nonsense names which came in time to signify them.

In the experiments proper two glasses containing two of the liquids, which were all colourless and odourless, were placed beneath the card-changer, and when the shutter of this was dropped its name was shown above each. The observers had to choose for a good reason between them and drink the one chosen. Time, breathing and psychogalvanic records were taken, as well as full introspective

¹ Boyd Barrett; *Motive Force and Motivation Tracks*, London, 1911. Cf. also Wells, *loc. cit.*

accounts of the process investigated. In this way it was possible to analyse choices subjectively, and at the same time to relate them with certain objective controls.

¶ 15. PHASES IN ACT OF CHOICE. In both researches the process of choice in general, though a continuous one, could be roughly divided into a number of characteristic phases, of which the third and fourth are the most important. The first phase consists mainly in the cognitive process by which the observers become aware of the alternatives. This is followed by a phase which includes all the processes of thought, judgement and feeling which constitute motivation. Next comes a phase of greater or less duration which occurs in a quite constant manner. The objective processes entering into the motivation phase disappear; and, though thought may occur, it is mainly characterised by feelings, such as doubt, hesitation, waiting and the like, together with, nearly always, strongly marked sensations of muscular tension. The last named are felt as localised more or less throughout the whole body, but particularly in the muscles of respiration and those to be employed in the movements of reaction. These are reported by the observers in their introspections and are also graphically recorded in the pneumograph curves, which indicate retarded and shallow breathing together with arrests. In this connection also the psychogalvanometric curves often show marked deflections. The frequent but not exclusive occurrence of these sensations of tension is of the greatest interest as indicating conation; and the investigators were

able to relate it to the two concomitant circumstances of imperfect adaptation on the part of the observers and negative motivation. Whenever the observers were badly "set" towards the experiments, or when reasons against choosing one or other of the alternatives arose in consciousness, these tensions were felt. But it was further possible to demonstrate that their occurrence in a process of choice did not indicate strong willing. The observers introspectively distinguished two sorts of choice, lively and cold; and at first they thought that the lively kind was the more truly volitional. Further analysis, however, showed that muscular tension arose and was experienced in "choices" that had become automatised and were in no sense voluntary; and that in every case the "liveliness" of a choice depended upon one or both of the two concomitant circumstances mentioned above (bad adaptation or negative motivation) occurring in the third phase of the total process.

The fourth phase of a choice is no less important for the psychology of personality and volition than the third. At this point a complete transformation of consciousness takes place. The feelings of doubt, hesitation and waiting disappear; tension gives place to relaxation; the chosen alternative is present to mind sometimes in a sensorial but often in a merely intentional (non-sensory) fashion; and, what is most important, there is present a constant factor which gives its specific character to a true will-process, whether the choice eventuate in a decision between the alternatives or a mere consent to one of them.

¶ 16. EXPERIENCE OF SELF-ACTIVITY. This constant factor is designated by Michotte "consciousness of action". It is an altogether different experience from that of effort, or activity. And, according to him, it is the phenomenal form in which we become aware of the profound self. It would seem to be identical with what Ach called the "actual moment" in his analysis and what James wrote of as the "fiat". Moreover, in disentangling our own "alertness" into the two threads of volition and conation as a result of the experimental work cited above, it seems to be exactly what we mean when we speak of the volitional aspect of unanalysed "alertness", which is altogether different as an experience from the feeling of bodily activity or effort.

However this may be, it is clear that all the researches upon the will to which reference has been made point to an immediate experience of self-activity as constituting the experience of willing; and, whether this experience be phenomenal only, in the sense that the self thus known may not be the self as it really is, or whether the knowing and known self are identical in the experience, the self as will emerges as the core and central nucleus of human personality.

¶ 17. METHOD OF ESTIMATES. The second experimental method that has been applied to these problems is that of estimates. In ordinary life it is not difficult to judge roughly of certain qualities of intelligence and character displayed by our fellow men; indeed much of our behaviour towards them, if not all of it, is based precisely upon the estimates

we more or less consciously form of them. Thus we employ people because we believe them to be trustworthy, honest and industrious; and we esteem our friends and distrust our enemies on account of the good or bad qualities we discern in them. Our individual and unreflecting judgements in these matters are generally based upon very poor observation. They are easily biassed and are frequently wrong. But that does not alter the fact that we make them and are quite ready to act on them. There is no reason, however, why the agreed judgement of a large number of observers, based upon careful observation of some few limited qualities of character, should not be trusted and even scientifically accurate. If every one agreed, for instance, that a certain person is cheerful, or on the whole more cheerful than a second person, that agreement would have scientific weight. There may be no way of measuring cheerfulness by a foot-rule, but we can estimate its presence in different individuals as being more or less. Indeed, we can place the individuals in an order of rank for this quality, as well as for many others, with tolerable confidence and a considerable degree of accuracy. All that is necessary for this is that a large number of judges should agree as to the order in which they are to be placed; and the amount of accuracy will be proportional to the agreement between the judges. Now here is a problem which can be treated by statistical methods; for we can calculate the agreement of a number of judges who place a number of individuals in an order of rank for any given quality. It is true that we cannot secure the judgements of the whole

population as the basis of our calculations; but the quality of our judges as judges is important, and we can secure a sufficient number of good judges to give entirely trustworthy results.

¶ 18. CORRELATION OF CHARACTER QUALITIES. Now, if this can be done with regard to one quality, it may be done with regard to several; and by correlation of one set of results with another it is possible to ascertain in how far one of these qualities tends to "go with" the rest. Thus, for instance, if we possess a trustworthy ranking of a number of individuals both for cheerfulness and for intelligence, we can calculate how far intelligent people tend to be cheerful. And we may pursue the same plan with regard to an indefinite number of other qualities.

This was the method of investigation of character qualities followed in Webb's brilliant work,¹ in which the relations between intelligence and the social and moral qualities of character are examined. In this research no less than thirty-nine character qualities, entered under the heads of Emotions, Self Qualities, Sociality and Activity, together with four intellectual qualities, for which tests were also carried out, are investigated and related with exceedingly interesting results.

¶ 19. INTELLIGENCE, CHARACTER AND WILL. In the first place it was discovered that a number of character qualities such as perseverance in face of obstacles, kindness on

¹ "Character and Intelligence", *Brit. J. of Psy. Monograph*, 1915.

principle, trustworthiness and conscientiousness tended to be shown by individuals whose intelligence was profound rather than quick; whereas readiness to become angry, eagerness for admiration and bodily activity in pursuit of pleasure were manifested in the case of individuals who were quick rather than profound. This interesting grouping of emotional and will qualities with two discriminable manifestations of intelligence led to a further resultant conclusion. By means of statistical treatment of his data Webb was able to show that a second general factor, prominent on the character side of mental activity as distinguished from intelligence, exists. In its positive aspect, it may be said, this is manifested by the moral qualities and deeper social virtues, as well as by persistence of motives; while in its negative aspect it is shown by an emotional instability and by a preference for the lighter kinds of social interest. Webb brings forward evidence to show that this general factor is one in close relation to "persistence of motives", and conceives it to be evidenced by a consistency of action resulting from deliberate volition, or will. For that reason he symbolises it by "w", just as the factor of general mental ability had previously been symbolised by "g".

In the light of his evidence Webb is able to consider in favour of his own conclusions much previous experimental work such as that of Müller, Heymans and Wiersma, and Ach. The first named of these had put forward evidence for the existence of a general perseverative tendency, which appears to be identical with the "secondary function" of

Heymans;¹ while Ach carefully distinguished perseveration from will-activity, even in the case in which perseveration affected his so-called determining tendencies. It might be asked if all these authors are not referring to one and the same general factor under different names; but Webb concludes that his own view best accords with that of Ach; and that there is no proof as to whether or not his "w" coincides with perseveration.

¶ 20. PERSEVERATION AND PERSEVERANCE. Great light is thrown upon this last point, however, by an important research carried out by Lankes² precisely in order to investigate it. A very complete set of tests of perseveration together with a detailed interrogatory were administered to a large number of testees whose persistence qualities of character were also estimated. A positive correlation between the tests and estimates was, as the author says, expected. That is to say, it was anticipated that perseverance would turn out to be nothing else than perseveration. But nothing of the kind occurred. The correlation was exceedingly low, and even negative. The conclusion to be drawn is that perseveration as a native quality of the nervous system, differing in the case of different individuals, is absolutely different from perseverance, which is the result of the individuals' own effort and will. According to the author, the evidence shows "that the self, with persons used to act morally, from higher motives of reason and

¹ Cf. *infra*, p. 153.

² "Perseveration", *Brit. J. of Psy.*, 1915.

principle, not according to merely natural bent and inclination . . . can modify, and directly counteract, its own nervous system and its innate tendency towards perseveration or the opposite”.

¶ 21. NET CONCLUSIONS FROM BOTH LINES OF RESEARCH.

The results of the two experimental methods, that of introspection and that of estimates, may now be brought together. It is impossible, perhaps, to describe or characterise a will-act such as resolution or decision. To be understood, it must be lived, or experienced and known personally. But in that experiencing and knowing it is evidently not reducible to mere sensations or feelings even of strain or effort. Nor is it a striving, though it may originate strivings and guide them. In short, it is experienced as something other than all those elements which together we usually consider as constituting our bodies so far as these are present in consciousness. But it is experienced, none the less, as self-activity; or, since this word has an implication of movement, as self-actuality; and it is a different kind of self-actuality from that manifested in thinking or knowing.

No doubt we can never will in any true sense of resolving or deciding unless we possess knowledge also; for there must always be something in regard to which we resolve, or about which we decide. These objects to which we can apply our wills may originally be given us as the result of some instinctive activity or, as we shall see, may be supplied from no previous experience of ours, but by creative

acts of our own minds.¹ But once they are conceived we can will them to become actual, even if we find our willing to be inoperative, or followed by no effective conation. Furthermore, these acts of will are, or may be, entirely effortless, merely utilising or re-distributing energy in various ways.

Thus the experienced self as will is distinguished from general mental (cognitive) ability as well as from perseveration and oscillation; all of which appear more clearly to be due to neural factors, and are, at least to some extent, controllable by will. If there should be any practical way of training that will, there is indeed a hopeful outlook opened up for everyone interested in education and the formation of character. A new value will be attached to the possibilities of human personality.

¹ Cf. *infra.*, p. 134.

CHAPTER VI

INSTINCT AND ITS IMMEDIATE DERIVATIVES

C. I. COMPARATIVE PSYCHOLOGY AND EVOLUTION. Of recent years increasing attention has been paid by psychologists to the activities of animals lower in the scale of attainment than man, as well as to those of primitive peoples and of very young children, with a view to discovering the principles which govern behaviour in general, and the springs of action from which it flows. This is especially true since the general acceptance by men of science of the Darwinian theory; for it was thereby hoped to find evidence of an evolution of mind parallel to that of the body which had already been provided by comparative anatomy, physiology, and other branches of biological science.

It is clear that the study of Comparative Psychology may throw light not only on the question of the evolution of the mind, but also upon the problems of personality and will. Indeed theories in respect of both will and personality have been constructed upon the data derived from this study; and the present chapter accordingly will be devoted to a brief examination of some of the salient and relevant facts. Previously, in a quite general way, it had been held that the behaviour of the lower animals was altogether prompted by a blind instinct, whereas that of man, the only rational animal, or person, was, or at least could be, both intelligent and freely willed.

¶ 2. PRIMITIVE PEOPLES. In this chapter we may neglect consideration of the fine work that has been done by the anthropologists in their study of races which, because of their low degree of culture and civilisation, are taken to represent more primitive phases of the evolution of the human species. Lowly as they may be, the mental make-up of their members seems to be identical in kind with that of their more cultured brethren, though it may differ greatly in degree; and if there is any difference between the springs of their action and ours, we shall find a still greater difference when we consider the behaviour of animals and perhaps of very young children. In these cases behaviour may fruitfully be studied in its origins.

¶ 3. INTERPRETATION OF ANIMAL BEHAVIOUR: CAVEAT. Here again brilliant work has been carried out by a very considerable number of observers; and there is a large amount of data available for review. But a *caveat* with regard to its interpretation must be entered at the outset and borne in mind throughout the present chapter. We ourselves are the interpreters of child and animal behaviour and we perforce interpret it in the light of our own adult experience. In reading any sort of mentality into behaviour which is not our own we are apt to fall into one or other of two errors. On the one hand there is the danger of eliminating from it any sort of mentality whatever; and this danger is the greater the more unlike our own the behaviour in question may be. On the other hand there is the danger of reading into it a mentality too like our own—the danger, in

respect of the lower animals, of "humanising the brute". That these dangers are real ones is shown by the facts that no less a thinker than Descartes held that the lower animals are no more than living automata, and that there are men of science at the present day who accept the same view not only with regard to the lower animals, but with regard to human beings also; whereas, at the other extreme, many of the writers on animal psychology speak of animal "intelligence" as if it were entirely comparable to our own.

With this *caveat* in mind, let us briefly consider a few instances of the behaviour of some of the lowliest and some of the more highly developed animals as well as that of the very young child.

¶ 4. TYPES OF ANIMAL BEHAVIOUR: AMOEBA. Amoeba is one of the lowliest creatures known, consisting in a single cell of protoplasm of microscopic size. Yet in its behaviour it shows clear evidence of what we should in ourselves call purposive desire and aversion, together with great persistence in its seeking and avoiding reactions. Whether we call this tropism or instinct does not much matter, provided we recognise that the behaviour indicates that some sort of a disequilibrium is set up in the creature which, by the result of its action, tends to be replaced by an equilibrium.

In an observation carried out under the microscope, Jennings,¹ having cut one of these animalcules nearly in two, so that the smaller part was dragged by a thread of protoplasm after the larger as it moved along the slide, saw

¹ *Behaviour of Lower Organisms*, Washington, 1904.

another amoeba by chance approach it and touch it. This second amoeba turned and followed the first, sending out pseudopods and ultimately almost entirely englobing the smaller portion of the first within itself, though a tiny orifice was left open. The protoplasmatic thread broke; and the second amoeba moved off with its prey inside it. But thereupon the severed bit of protoplasm became active. In turn it sent out pseudopods of its own and began to ooze out through the orifice. This move, however, was countered by its captor by thrusting out its pseudopods afresh and again englobing it. And this act of the drama was performed twice. In the next act the mutilated fragment of the first amoeba escaped, only to be overtaken and "eaten" again. And, lastly, it escaped finally by forcing its pseudopods through the thin containing wall of its captor which, on this occasion, did not further pursue it. In all this we have examples both of desire and aversion, together with great purposeful persistence in satisfying them, as well as notable variation of behaviour according to the changing circumstances. A great many instances of this kind of behaviour could be given as exemplified by the lowliest unicellular creatures, such as paramoecium and stentor, as also observed by Jennings.

¶ 5. THE SOLITARY WASP. Turning to the behaviour of insects, one of the most famous and best known examples is that of the solitary wasp, whose habit is to build a nest and provision it with food for the grub to be hatched from her egg. This creature follows the curious procedure of

digging her nest in the ground first and then going in search of prey, which she stings and carries back to the edge of the nest. There she leaves the grasshopper or caterpillar while she enters the nest "as if" to have a look round and see that all is well before placing the prey within it. She then drags the prey into the nest, lays her egg upon it, and closes the opening. This chain of actions is evidently of a very stereotyped character; although it is not, as was formerly believed, absolutely rigid. The view had, for instance, been maintained that the wasp stung her prey with unerring instinct exactly in those neural centres which would cause paralysis, so that the creature, though alive, would be unable to move. Thus the larva, when it hatched from the egg, would be in no danger; and at the same time it would be provided with fresh food. But this view was found to be incorrect. The stings were not so anatomically placed as always to paralyse. Sometimes the caterpillar was paralysed, sometimes not; sometimes even it was dead before the egg had hatched. Moreover, the behaviour as a whole, if the circumstances were slightly altered, was found to be variable. The naturalists Dr and Mrs Peckham, doubtful of the asserted invariability of the instinctive routine, and to observe what would actually happen, removed a grasshopper left outside while the wasp entered the nest. She came out, looked for the prey, found it, dragged it again to the edge of the hole, and leaving it outside went in herself exactly as before. Again they removed it; and the same performance was repeated over and over until at length, after forty repetitions, the wasp

gave up. She laid her egg in the nest and finally closed it without having provisioned it for her larva. The chain of behaviour had altered.

¶ 6. NO ABSOLUTELY INVARIABLE BEHAVIOUR. What is here far more interesting than the fact, now generally recognised, that there is no such thing as absolutely invariable instinctive behaviour, is the immense persistence of the wasp in attempting to carry out her impulse in the face of obstacles. Again we find evidence of indomitable striving to satisfy a "desire" or prompting of the creature's nature. We cannot suppose any intelligent prevision of the goal to be attained, for the wasp may have had no previous experience of making and provisioning nests for her young. We can only credit the creature with a purposeful impulse to realise an end useful to her kind, with possibly some vague consciousness from step to step of what she is doing.

Innumerable instances of purposeful and useful behaviour of a more or less rigid type carried out, at least on its first appearance, with no clear prevision of the end to which it will lead, or the relation to that end of the means employed, are to be found throughout the whole animal kingdom. But it is to be observed that the more stereotyped forms of behaviour are those of creatures possessing a neuro-muscular apparatus which is highly specialised (insects, fishes); whereas greater plasticity is exhibited in the behaviour of creatures in which that apparatus is more developed and more complex (*e.g.*, mammals, anthropoids, man). The weaving and mending of webs by spiders, the migration

of fish to their spawning beds or of birds to their winter and summer quarters, the cycle of mating, nest-building, egg-laying, incubating, rearing, and teaching of their young to fly of birds, the collecting and storing of nuts by squirrels, the building of lodges and dams by beavers, are all cases in point.

¶ 7. SIMILAR BEHAVIOUR IN MAN. Similar kinds of behaviour, which can only be explained in like manner, are observable in man also. We too have impulses to act in ways we do not, at any rate at first, altogether understand, towards ends we have never clearly foreseen. Only in us in adult life such impulses are generally cloaked by conscious knowledge and prevision, and overlaid by plans and aims which we have considered and definitely made our own. To find instances of purely instinctive behaviour in ourselves we must either observe our behaviour at times when the control of conduct by will and habit has been disturbed or overcome by passion, as in rage or fear; or else we must go back to the beginning of infant life and observe the activities of the child who as yet has little or no experience to guide him. But when we do discover examples of such behaviour, we find that it is altogether comparable to that which in the case of the lower animals is called instinctive. There is more or less foresight but no clear and definite prevision of the goal or goals to which it will lead and no deliberate purpose of attaining them, though the action itself shows all the signs of purposefulness. There is great persistence of effort. At least in the

simpler cases the behaviour is such that the goal is reached in the most direct and ready way. And during the time while the drive which impels us is operating we experience a very considerable stress of feeling or emotion.

¶ 8. EMOTIONAL STATES. Take the case of the man who is suddenly impelled to action by an uprush of fear or anger or lust. He is stirred to the depths of his being by surges of emotion. He is incapable of reviewing the situation calmly. He cannot act from motives of prudence or propriety or duty; but is driven on the wave of his passion almost blindly towards a goal he has not clearly foreseen. So simple a case, of course, rarely happens; for it is usually at once complicated by other factors in the adult. There is a certain amount of habitual restraint available to check the impulse. Considerations do arise in his mind for and against the conduct to which his instinct prompts him. But something sufficiently like it happens often enough to make us believe that the main springs of action in us are on all fours with those we call instinctive in the case of the lower animals. As has been said, our instincts may be masked by intelligence and deliberate thought; but underlying all the variety of human behaviour we can discern the common motive force and driving power of our animal nature. All this becomes even more apparent from observation of the behaviour of very young children.

It has been disputed whether there are many or only a few instincts in man. For our purpose it is unnecessary to discuss this matter here, since it can be shown that there are

some connate, or natural reactions to stimuli and situations, the development of which during the life of the individual is sufficient to account for his most complicated forms of behaviour.

¶ 9. LEARNING BY EXPERIENCE. To begin with, we have already seen that there is no such thing as absolute rigidity in the behaviour of even the lowliest organisms. There is always some adaptation to variation of circumstances, some learning by experience even if it be infinitesimal, in following the instinctive drive. Amoeba, for example, alters its direction and thrusts out different parts of its body as pseudopods according to the movements of its captor or its prey. Stentor makes one different reaction after another in its attempt to avoid the stream of irritant carmine particles by which it is stimulated. The frustrated wasp alters her routine of provisioning her nest. The newly hatched chick pecks, but pecks more successfully with practice, and learns to avoid the disgusting cinnibar caterpillars which at first it seized so eagerly. The nest-building bird discovers that thread or cotton-waste is as good material for its purpose as straw or grass, and builds a better home the second time than on the first occasion. Thorndike's cats¹ in time learn to escape from their puzzle-cages by clawing at the loop or pushing at the button which releases the door-catch. And Köhler's chimpanzees² invent instruments by the use of which they can secure food which

¹ *Animal Intelligence*, New York, 1911.

² *The Mentality of Apes*, London, 1925.

is out of their reach. The rigidity of the form of behaviour which satisfies instinctive desire and aversion becomes less and less as we borrow our examples from higher and higher types of animal life,¹ until at last we come to man. And here, in place of more or less rigidly stereotyped forms of behaviour, we find the utmost plasticity. It does not follow, however, that this plasticity is wholly manifested at the outset of his life. On the contrary the native reactions of the infant appear to be greatly circumscribed both in themselves and in regard to the situations in which they are called out. None the less, very quickly they become broadened and adapted.

The native reactions themselves become modified; and other stimuli than those which originally provoked them come to function as well as these. In this way, even if the human infant is equipped at birth with only a very limited number of reaction patterns, a great variability in his behaviour is speedily attained. If we should use McDougall's simile of the key and lock for the stimulus and its connately related behaviour tendency, we should say that new keys come to fit the lock, while the behaviour set in motion by the turning of its wards is capable of indefinite modification. In this connection two questions arise:—

¹ Note throughout the foregoing how the different kind of reaction is carried out according to and dependently upon the bodily structure of the particular creature in question. Amoeba has no ciliary processes with which it could sweep nutriment into its digestive cavity, or sweep away irritant stimuli; but it can make use of pseudopods. Neither the bird nor the cat possesses hands with which it can manipulate sticks and boxes as the apes did.

How is it that other keys than the original ones become adapted to the locks? In what ways do the alterations in the behaviour itself come about?

C. 10. HOW LEARNING COMES ABOUT: BEHAVIOURISM. Two principal answers have recently been given to the first of these questions. The Behaviourists claim that the human infant is born with a number of inherited physiological mechanisms which are activated by stimuli in a *quasi* mechanical fashion. Thus, for instance, the infant reacts with fear-behaviour to a very limited number of stimuli, such as loss of support, loud noises, sudden pushes. He shows anger-behaviour when his freedom of movement is interfered with; and love-behaviour when stimulated by gentle stroking, rocking and the like. Any one of these forms of behaviour, however, can be "conditioned", or associated to other stimuli, if these are presented at the same time as the stimulus connately attached to the behaviour in question. Thus, if a rabbit or rat, of which the child is not naturally afraid, is shown to him while he is undergoing a fear-reaction to a loud noise, his fear becomes conditioned to the animal, and subsequently will be provoked by the sight of it. Moreover, the reaction will spread to other stimuli which only resemble the rabbit or the rat; and the child will manifest fear-behaviour when presented with a teddy-bear, or bit of fur or cloth. Similarly, persons and things may become the stimuli to rage-, hatred- or love-behaviour if they have been experienced together with the natural stimuli to such reactions. Later on, persons and

things similar to them may provoke the same kinds of behaviour. In this way, it is explained, human behaviour comes to be progressively modified throughout life; but principally at its earliest stages.

All these forms of behaviour are treated in Behaviourism on all fours with bodily reflexes; and it is asserted that there is no need of bringing in consciousness to account for any one of them. They are assimilated to the conditioned reflexes of physiology which have been so thoroughly investigated by Pavlov.¹ Indeed, these conditioned reflexes, such as that of salivation in the dog when provoked by the ringing of a bell,² together with the native reflexes are taken to the typical elements from which all complicated behaviour is built up. The only apparent difference between this doctrine and that of associationism is that in it mind is left out of the account. Psychology is reduced to physiology.

C. II. HOW LEARNING COMES ABOUT: FORMALISM. The second answer is given by psychologists of the Formalist (Gestalt) school. Animals and human beings certainly learn things; and their behaviour in the course of time becomes modified by experience. Granted some original tendency to react in a definite way, such as that of grasping which one observes in a baby, the Formalists explain that

¹ *Conditioned Reflexes*, Oxford, 1927.

² Salivation is a reflex naturally evoked by food; but it can be evoked by the sound of a bell after this stimulus has been presented a number of times together with food.

this behaviour comes about by way of reaction to a stimulus which is perceived as a meaningful structure or whole, no matter how primitive the character of that whole may be. There is no mere linking together of a chaos of unrelated reflex elements as in Behaviourism, but the apprehension of some sort of whole from the outset; and learning consists, not in associating brute elements together, but in insightful apprehension of the meaning of parts in relation to their wholes. Thus Köhler's ape which built up a pile of boxes in order to reach bananas hanging from the roof of the cage, perceived the boxes as useful to an end within the whole situation of which they formed a part. And Sultan, who having once by chance fitted one bamboo cane into another so that a stick was formed long enough to reach fruit he otherwise could not touch, and drag it into his cage, perceived it as a tool in relation to the whole situation, and promptly made use of it to obtain the food. Moreover, having once grasped this relation with insight, Sultan was able to fit short bamboo canes together intentionally to make a long one, and so on subsequent occasions promptly gather in the coveted fruit.

Quite similar, according to the doctrine of this school, is the way in which the child "learns" to avoid the fire. It is not because of the association of the visual appearance of the fire with the experience of the pain of touching it. It is rather that the child now perceives the fire as a new and more developed meaningful whole to be shunned rather than grasped at. The behaviour follows the insight, more or less profound, into the objective configuration of the

environment to which the creature is prompted to react; and it is adjusted by that insight.

¶ 12. TRUTH IN BOTH VIEWS. In both these answers to the question as to how any other than the limited number of connatural stimuli come to function as well as these, we have the postulate of original reaction patterns either to definite single stimuli or to definitely apprehended whole situations. But the one attempts to show how new keys become adapted to the locks by chance contiguous associations and by associations due to similarity, whereas the other explains how the adaptation takes place by a growth of insight and meaning. There is a good deal of truth in both these answers. We human beings as well as the lower animals do learn to react to new stimuli by way of associative processes; and we also—whatever we may believe of the animals—do learn by way of insight. But, as we shall see, there are two different levels of insight; and the behaviour which is called out on the perceptual and associative level can be completely transformed and altered by insight on the conceptual level. We can none the less trace a very great multiplication of stimuli or situations which will evoke behaviour of a more or less definite pattern to the principles of conditioning or association and to perceptual insight, as applied to a limited number of original connate behaviour tendencies.

Our answer to this first question has reference only to alterations and substitutions of the stimuli which provoke behaviour and tells us nothing of alterations in the character of the behaviour which the stimuli tend to provoke.

Despite the multiplication of the keys, the lock, as was once believed, might be an absolutely rigid one, the wards of which would turn only in one fixed and definite manner. We have seen that this is not so, and that it is precisely the plasticity of the behaviour with which the second question is concerned. How does the original behaviour itself become modified?

¶ 13. MODIFICATIONS OF BEHAVIOUR. In the first place, we should remember that, from the very onset, it is never absolutely stereotyped. It is typical only. Even amoeba, as we saw, shows a degree of plasticity in its responses to varying circumstances. Possibly no two of its actions are ever exactly alike. It sends out its pseudopods in various directions and from various areas of its body surface. Typically, nevertheless, its food-seeking and escaping behaviour is always the same, even though its details may vary. And so for the rest. But very considerable variations in relatively stereotyped behaviour, sufficient to break the usual instinctive routine and render the chain of action atypical, also occur quite low down in the animal scale. We shall examine the chief ways in which such changes take place in order to compare and contrast them with similar, though far greater, modifications which come about in human behaviour.

The four chief recognised marks of purely instinctive activity are its purposeful aiming at a goal, its relative invariability, its universality in a given species (or class or kind within a species), and its relative perfection upon its

first appearance. With regard to the first of these characteristics, it has generally been held that there is no prevision whatever of the goal at which the instinct aims, at any rate until this has once been realised; and many authors have held that there is no foresight even then. But the fact that the action is carried out at all seems clearly to indicate that from the very beginning the instinctive situations are meaningful to the creature in some dim way, and therefore call out the actions appropriate to them. If those actions, the patterns of which are provided by heredity, are unsuccessful, and the aim of the instinct is unrealised, then at any time we may look for modification of the behaviour patterns, as far at any rate as the creature is physiologically adapted to changing them. But we shall expect frustrations of the instinct to occur less frequently when the creature we are studying lives in more uniform conditions of environment than when its environment is a less uniform one. Since, however, no environment can be supposed to be absolutely uniform, we should be prepared to find some sort of modification of behaviour at any level.

C. 14. SPONTANEITY. "Now this may happen spontaneously when the creature has to face an environmental difficulty in the absence of experience of any way in which a similar difficulty has previously been dealt with. Thus, for example, the ordinary routine of behaviour of certain beetles in burying small dead animals is to dig a hole in the earth and bury them where they are found. But Fabre placed a dead mouse on a brick which he had covered with sand in such a

way that the beetles could not carry out their operations in the usual manner. They wasted a great time unsuccessfully attempting to dig into the brick. Then some of them spontaneously altered their procedure. They left the dead mouse on the surface of the brick and dug a number of holes elsewhere. But these they left unused. At last they dug a hole, dragged the body of the mouse to it, and buried it there. By an alteration in the usual instinctive procedure the goal of the instinct had at length been satisfied.

¶ 15. TRIAL AND ERROR. A freer adaptation and modification than the foregoing is, however, brought about by experience. As the environmental conditions become more complex and less uniform, rigidly instinctive reaction patterns become less useful and greater plasticity becomes necessary for survival. In such circumstances we find that originally instinctive behaviour becomes altered by "trial and error" learning. Behaviour useful towards the attainment of the instinctive end is repeated and stamped in, whereas unsuccessful actions are eliminated. A good example of this kind of learning and adaptation of behaviour in unusual circumstances is to be found in the experiments of Thorndike,¹ whose hungry cats learned to escape from their puzzle-cages by a gradual process of establishing connections between the sight of the loop or latch which controlled the door of the cage and the right movements which secured their release and feeding; while at the same time they gradually omitted to perform the useless movements

¹ *Loc. cit.*

by which they had at first tried to escape and reach the food.

Success or failure in attaining the goal of the instinctive urge, or possibly the pleasure consequent on success and the unpleasure of failure, are the principles upon which such learning is to be explained. The same principles govern the maze learning of lowlier creatures than cats—chicks, fishes, crustacea and even earthworms—with which experiments have been carried out. And in our own case they may be extended to explain some modifications of human behaviour such as that, for instance, which takes place when we slowly learn to solve manipulative puzzles by fumbling, pushing and pulling at them in a blind sort of way.

¶ 16. PERCEPTUAL INSIGHT. Still freer is the kind of modification which is brought about by what may be called perceptual insight, typical instances of which are to be seen even in the nest-building activities of some birds, but especially in the behaviour of Köhler's apes. The birds apprehend certain materials concretely as "useful" for making nests; and are ready to change with considerable adaptability from one sort of material to another. Though this does not perhaps disturb their routine cycle of behaviour as a whole, it does involve some alteration of detail in the manner in which the nest is constructed. In the case of the chimpanzees, it seems to be clear that concrete relations between the concrete parts of the total situation were apprehended; and that boxes to be stacked one upon another, or bamboo poles fitted together, are seen as "useful" for getting at fruit which

is out of reach. But there is no evidence that the relations are grasped abstractly in the case of the apes any more than in that of the birds. In some cases even the chimpanzees seemed unable to break up a perceptual whole into its perceptual parts; as when one which had learned to make use of a box in order to reach the fruit, made no use of it when another ape was lying on it. For Chica it was then concretely "a box to lie upon" and not "a box with which to reach bananas". None the less the insightful power of dealing with concrete objects, percepts or images, and concrete relations is a principle which greatly frees behaviour from routine and, together with the possession of mental imagery, allows an enormous variability in it.

Like the trial and error learning in the cats which comes gradually to modify their behaviour, this learning by perceptual insight can also be exemplified in ourselves. The solution of a mechanical puzzle by fumbling and pushing at it blindly until it comes apart in our hands, unless we then see "how it is done", will not greatly help us to solve it the next time we try; and learning to solve it thus may require an enormous number of trials. But if, even blindly fumbling in this way, once we "see how it comes apart" insightfully, we have learned it and can at once solve it when we try again. And if we perceive the concrete relation necessary to solve it without such fumbling, then we can solve it at the first attempt.

But this principle of the direction of activity by perceptual insight, together with sensory memory, while it applies to every instance in the case of the apes and many other

animals, and even to an immense number of instances in our own case, cannot account for all human behaviour or its variability. As we shall see in the following chapter, we are able mentally to separate the elements and relations of wholes in a conceptual manner; and this power of conceptual abstraction provides us with an additional principle upon which to explain all those instances of purely human behaviour which cannot be explained on the principles we have already examined.

¶ 17. GENERALITY OF DISPOSITIONS. There is one further point to be considered in this place. We have seen how instinctive behaviour comes to be adjusted to stimuli other than the native ones which originally alone provoked it, and how the behaviour itself comes to be modified and complicated. Both these points have reference to what may be called a wider diffusion or generalisation of instinctive activity. Already at their first appearance, however, the primitive impulses which we ascribe to instinctive dispositions are generalised. They are impulses to react, not to one object or situation only, but to any object or situation of a certain kind. Thus we have an impulse towards flight from any "fearful" object, or towards aggression against any invader of our wellbeing or rights; and these impulses are to be inferred from the behaviour of other animals also.

¶ 18. SPECIALISATION. But there is a contrasted process of specialisation to be observed as occurring in the lower animals as well as ourselves, which is of no less importance

in the building up of character within the personality, especially, as we shall see, in its relation to the will. This is the process by which the stimuli to a given kind of behaviour become narrowed down from all the like objects or situations of a given class to a group or even to an individual within it.¹ A good example of this process is seen in the way in which the sex-instinct, originally directed towards any mate, becomes aimed at one mate only. This process of sentiment-formation does not add anything over and above it to the instinct within which the sentiment is developed, but is a development of the instinct itself; for the impulse of the instinct finds full satisfaction in the object to which it has become specialised, and around which a whole cluster of emotional dispositions come to be related. Thus the object of a love-sentiment of this kind when threatened tends to awake in us feelings of distress, pity, protection and the like in its regard, as well as of hatred, anger and aggression towards what- or whom-soever threatens its wellbeing. Our behaviour is determined largely by sentiments of this kind and can thus be seen to be connected with the original instincts from which they are derived. This is by no means a purely human mechanism; for we observe similar behaviour in the case of very many animals. Even the affection of a dog for its master is an example of an analogous kind.

In a similar way the herd instinct which prompts us, as well as many other animal species, to social life, may become specialised to a particular kind of society in which it finds

¹ Sometimes also to a group or individual not included in the class.

fuller expression and satisfaction than in others. We may be members of a school or college, or join a club or political organisation, and discover that the sentiments specialised in this way, because of the emotions attached to them, influence us strongly, not only in respect of the particular association to which we belong, but also with regard to all others which are friendly or inimical to them.

These examples, it is true, take us beyond the scope of the present chapter. But sentiments, though they may in our own case largely be mediate derivations of instinct rather than immediate ones, nevertheless are grounded upon it. The love of a man for his wife, though it may be idealised, has its roots in the sex-instinct. No doubt this instinct is complicated with others, but fundamentally it is a sex drive; and a vestige of the general sex-instinct may survive even after the formation of the sentiment. The *esprit de corps* of a schoolboy, clubman or member of a church is a derivation of the common tendency to herd together; and though one may prefer champagne and oysters to bread and water, the specialised taste is no less a manifestation of the common root-appetite than the more general one.

CHAPTER VII

SENTIMENTS AND VALUES

¶ I. RECAPITULATION. As introduction to the discussion of sentiments and values two outstanding conclusions already reached may here briefly be summarised. In the first place, there exists in us a general will factor closely connected with, if not actually the central core of personality, in virtue of which motives for conduct are accepted by us so that their persistence is secured. In the second place, from the very outset of the life of the individual he manifests a number of reaction tendencies ready to be activated by environmental stimuli; and these in the course of time and experience become modified both in themselves and in respect of the stimuli which provoke them to activity. These are the instincts discussed in the last chapter.

With regard to these natural reaction-tendencies and their immediate derivatives there can be no question of will in the strict sense of the word. Previous to their activation there is no room for any conscious determination, resolution or choice in their regard. The natural stimuli-situations themselves are sufficient motives for the ensuing action; and, unless for any reason this is inhibited, the behaviour of the creature follows as a matter of course on the impulses they generate. Our own daily life is largely made up of behaviour of this sort; and it must accordingly be taken into account in any consideration of human personality. There is, however, no reason why we should

not admit in our own case as well as in that of other animals an obscure or unconscious will in respect of these instincts; provided by this we mean the natural inclination of the organism to orient its behaviour towards goals prescribed by its own internal constitution. This we may believe to have evolved along lines which best adapt it to its simpler or more complex environment, so that the actual behaviour observed conduces to a more remote or final end than those in which it immediately terminates. Environment, accordingly, as well as organism is to be considered in any investigation of the unconscious will. We shall see later that it must enter into any account of the conscious will also.

¶ 2. UNCONSCIOUS WILL AND CONSCIOUS VOLITION. If we are to speak of unconscious will, however, with any definite meaning, it must be shown that there is a close analogy between this concept and our actual experience of conscious willing. It must be clear that we have a right to interpret purely instinctive behaviour by reference to volition, and to postulate an analogous principle to explain it.

Perhaps the best way to develop this analogy is to make an analysis of a typical process of conscious volition into which choice does not necessarily enter. We shall examine that of a desire which issues without hindrance in the prosecution of the desired object.

Considered in itself desire is a state of longing, or aspiration towards a goal which is not yet actual but is

represented as possessing a certain worthwhileness in the estimation of the person desiring it. In its subjective aspect desire is essentially an experience of tension or uneasiness; but it is not a merely abstract tension. Like an appetite it is the tension of a concrete individual, the craving of an organism. Unlike the vague organic tension of appetite, however, the tension of desire is determined by the perception or representation of a concretely worthwhile goal which promises satisfaction. The goal, that is to say, as mentally apprehended constitutes a value which corresponds to a need or want of the person desiring it. Desire, accordingly, consists in a concrete relation between a conscious subject and a concrete goal; just as value is a relation between a worthwhile goal and a conscious subject. The terms are correlative.

In our conscious experience of desire, however, there is more than this. The essential note of "object desired by me" enters into it. It is we ourselves who long for and tend towards a goal to be realised in our own personal experience. Not anyone's goal, but my goal is in question. The self is thus one of the terms apprehended in the relation of desire; and the longing or tending is nothing more than an affection of that self. Desire as such is no substantial entity; when considered separately from the self and the goal it is a mere abstraction. In precisely the same way the worthwhile goal is consciously experienced as the second term in the relation; and its value, again, is no more than an abstraction when considered apart from the relation in which the two terms stand.

¶ 3. CHANGING RELATIONS. In the actual prosecution of the goal consequent upon desire the relation between it and the self continually changes, until in the end the goal is reached and desire gives place to enjoyment. The concrete experience is that of a process in which the relation undergoes change because the self and the goal themselves are changing. The goal is being realised, coming ever nearer. The self is approaching satisfaction. In that process we are aware of a modification taking place in our consciousness from strain and unrest to tranquillity. For the goal is approached by means, even though the means be so simple and direct as putting out our hands to grasp it; and the successful use of the means brings the end ever closer to us and makes it our own. The whole experience is manifestly a teleological one; and it can be expressed in no other than teleological terms. A conscious organism consciously tends towards an absent goal which by some means it makes its own, thereby terminating a state of tension in a state of equilibrium.

¶ 4. NOTION OF TELEOLOGY. From this personal and concrete experience of teleological activity we can, and as a matter of fact we do, abstract the concept of teleology in general; with the result that we can apply it in interpretation of the behaviour of any organism which is seen to be in a relation to a goal similar to that in which we have consciously experienced ourselves to be. And this is so even though the organism in question be supposed to have no cognisance beforehand of the goal at which it aims, nor of the

relation between the goal and the means whereby it comes to attain it, but only of an impulse to deal with a present stimulus in a more or less definite way. The same sort of behaviour occurs in our own case whenever we act impulsively; and we interpret it in a precisely similar fashion. It may be purposeful but it is not purposive; we may in fact be striving towards a goal, but without knowledge or intention.

¶ 5. INSTINCTIVE VALUES. If we apply the results of this analysis to purely instinctive behaviour we shall say that all the native and acquired tendencies to action considered merely as such are nothing more than abstractions. They are not separate or separable entities, but merely principles postulated, on analogy with our own experience, to explain behaviour which is called out in response to different stimuli-situations, and directed towards the attainment of different proximate goals. These proximate goals have value for the organism attaining them; but their full value lies in their relation to ultimate ones. This we can appreciate and understand, though the analogy does not necessitate appreciation or understanding in all cases in which the relation holds good.

Thus, by the instinct of flight, with which we credit animals observed to flee from danger, we mean no more than that in a given situation the animal will attempt to escape. That is, we credit the animal with a permanent possibility of experiencing an impulse to escape which will become an actual impulse whenever it meets with an

appropriate danger-stimulus. We need not suppose that the animal knows why it escapes, nor that its escape is a means of value in subserving the end of its own preservation and that of its kind. Similar considerations hold good with regard to the instincts of aggression, sex, or any others which we believe to be natural to the animal, or immediately derived from natural tendencies.

No matter how few nor how many are the forms of behaviour evoked by different stimuli and directed towards different proximate goals, for each of which we thus come to postulate a separate instinctive disposition, no one of them is in fact anything more than the creature itself reacting as an individual organism. The experience of the unity of the self should be applied here as well as that of the relation of the self to its goals. The creature reacts as a unitary whole, according to its physical and mental constitution, in the various ways which have developed in the course of the evolution of its race, and become modified in its individual experience. Thus, while we may look upon the preservation of the individual in its integrity and the conservation of the race as final goals which are the same for all, organisms at different levels of evolution must of necessity exhibit different kinds of behaviour in attaining them. The earthworm cannot, for instance, avoid danger in the same way as the fish or reptile, nor are its dangers similar to theirs. The bird cannot attain its biological ends by the same proceeding as the marsupial or mammal. And no other animal shows the same versatility in employing means to ends as man does.

¶ 6. VALUES DETERMINED BY ORGANISM AND ENVIRONMENT. The proximate goals towards which instinctive behaviour and its immediate derivatives are directed, accordingly, are determined partially by the environment and partially by the mental and physical constitution of the organism in view of ulterior goals of which in every case it cannot be supposed to have any cognisance. As we have seen, we human beings do understand and appreciate the relation of proximate ends to remote, and even to exceedingly remote, ones; but there is no evident reason for supposing that other animals can do so. What we can and must suppose, however, if we apply the analogy at all, is that an orientation towards ultimate goals is inherent in the constitution of all living organisms, and that the instincts have developed, both on their physical and their mental side, as appropriate determinations of that orientation. They aim at proximate goals the realisation of which tends to further the securing of an ultimate one. To say this is to stress the unity of the organism on analogy with the unity of the self of which we are immediately conscious. It is to emphasise the importance of the environment in attempting to give any account of behaviour. And at the same time it is to suggest a reasonable meaning for the expression "unconscious will". By this term we shall understand the essential tendency of organisms to realise remote ends of which they may not be aware by the more or less fully conscious manipulation of means which secure those remote ends; the means in question being the stimuli which, corresponding to a present need or craving, are the sole necessary motives for action.

¶ 7. TELEOLOGY AND EFFICIENT CAUSALITY. Though this formulation and the considerations which lead to it are teleological in character, and thereby may seem to pertain to philosophy rather than to science, it should be emphasised that there is no inherent contradiction between a teleological view and one of efficient causality. The behaviour of all living organisms may well be explained as conditioned by a *vis a tergo*, provided the organisms themselves are taken into account in the explanation. Their physical and mental constitution, due to racial and individual history, are certainly in part the cause of their behaviour as well as is their environment. But, as a matter of fact which we human beings can evaluate, their behaviour does subserve a useful end and for them is thereby worth while. Though they may in no sense appreciate the worthwhileness, the immediate goals they attain and the behaviour by which they attain them has value, not only in respect of any satisfaction which they may experience in the attainment, but also with respect to the ultimate goals with which we can see them to be related. There may be no true *vis a fronte*, no energy belonging to final causes in the scientific sense of the word; but the relation of finality as well as that of causal efficiency *a tergo* is to be observed in all biological and psychological phenomena whatever.

¶ 8. CONSCIOUS VOLITION AND VALUES. So far in this chapter we have mainly been occupied with the unconscious or instinctive will; but similar considerations hold good in respect of the human will in the strict sense also. If we

accept the natural orientation of human beings as well as of all other animals towards instinctive goals as being an indication of unconscious will in us, we shall interpret this by means of the same analogy. It will aim at an ultimate goal to be subserved by our instinctive tendencies and their immediate derivatives, by our conscious resolutions and decisions, and by our choices. Of that ultimate goal we need be in no way conscious. Indeed, we are not directly conscious of it in any way, but at most can only construct it in ideal as a correlate of experience which in every way falls short of it. Such constructions have been made in philosophical and religious speculation, in which absolute values and absolute ultimate ends have been proposed for acceptance. Apart from the precise nature of these absolute values, however, we have experience that something of this sort is to be accepted; for all our conscious behaviour is seen on reflection to be aimed at some such goal as ultimate and complete happiness, the unfettered expression of one's own personality, or the complete actualisation of oneself. Often we act as though this aim were to be realised in the attainment of some proximate goal such as social success, the acquisition of knowledge, the display of athletic prowess, the attainment of present or posthumous fame, the possession of wealth or the like; and it is only by experience that we come to find that these fail to satisfy us, and conceive of a goal more ultimate and more valuable than they. For our spontaneous and even our revised conceptions of ultimate goals and highest values are not necessarily those of the goal and value set for us by our unconscious will; and our

conscious strivings towards this or that ideal not infrequently prove to have been a waste of time and energy. Their supposed values are found to be illusory. Indeed, it can safely be said that complete, absolute and irrevocable happiness, self-expression or self-realisation cannot be secured by the pursuit or attainment of any goal or value, or any collection of goals or values, offered to us in our physical environment. These are always deficient in some respect, even if it be only in this that they are never irrevocably secured. We may attain the best and lose it.

None the less, it is one and the same human individual or person who reacts impulsively or deliberately in response to that physical environment. Man is an individual who acts as a whole, as do all other organisms, according to his physical and mental constitution; and his reactions, as theirs are, are reactions to definite stimuli.

¶ 9. BEHAVIOUR AND CONDUCT. Were this all that is to be said with regard to human conduct it would be altogether assimilable to the instinctive behaviour of any other organism, and no question of will in the strict sense could ever arise. That this is not so is evident from the fact that in order to speak of an unconscious will in any intelligible way we were obliged to begin with experience of conscious willing and argue by way of analogy from this. Moreover, as we shall immediately see, the physical environment of man is not exhaustive of his environment; and in this further fact lies a clue to motives and conduct which is no less important than is the introspectively experienced differ-

ence between instinctive reaction to physical stimulus on the one hand and deliberate resolution and choice on the other.

C. 10. SENTIMENT FORMATION ON SENSORY LEVEL. In the last chapter we saw that different forms of instinctive behaviour are called out by stimuli-situations of definite types, but that the behaviour-dispositions themselves may become narrowed so as to be responsive to certain individuals, or even one individual only, within the type. We may neglect the fact that these dispositions may also become fixated upon objects which do not conform to type. This is the process of sentiment-formation, in which not only do generalised tendencies become specialised, but the specialised tendency integrates a whole range of other instinctive dispositions around itself. In this way it comes to constitute an extremely strong conative nucleus. Thus, for instance, when a sentiment of friendship for some individual comes to be formed not only is a stable attitude of affectionate regard for him established, but all our other instinctive dispositions are enlisted in its support. We not only behave in a benevolent manner towards him personally, sympathising with him in his griefs and rejoicing in his joys. We are not only emotionally stirred by all that affects him in much the same way as we are stirred by all that affects ourselves directly. Our attitudes towards other persons and things are also profoundly modified by their attitudes in his regard. We tend to like his friends, or to be jealous of them. We dislike his enemies; and our behaviour towards

them is affected accordingly. We share in his interests and attempt to promote them. And the like.

This process of sentiment-formation is clearly a subjective one. Sentiments, though directed upon objects and persons, are entirely personal affairs. But their formation profoundly alters the significance of the environment for us by shifting its values within the range of the original instinctive relations. While the principles of conditioning, association by similarity, learning by trial and error and by perceptual insight, considered in the last chapter, expand the scope of the environment to which we originally react instinctively, the principle of specification to sentiments at the same time both narrows and enlarges it. It narrows by restricting the full instinctive urge to definite individuals; it enlarges by bringing other instinctive dispositions into play within the network of relations converging upon the object of the sentiment. This clearly indicates a series of alterations of value. The physical environment, none the less, remains exactly what it was before except in respect of these relations. It is an environment of concrete things and persons of which we ourselves form concrete parts. All the values we apprehend within it are sensibly concrete objects and persons corresponding to some felt need of our own.

All the sentiments established on this level in ourselves and other animals are definitely called into action by these sensibly apprehended objects and persons; and in so far they may appropriately be termed sensorial sentiments. All the values here are concrete objects and persons; and for the same reason, though they cannot be sensorially

evaluated, might be called sensorial values. Such sentiments are the immediate derivatives of the instincts; and they operate on the same level and in the same sensorial way. Such values are in fact worth while; but their worth-whileness need not be known.

C. II. SENTIMENT FORMATION ON CONCEPTUAL LEVEL. The bodily and sensorial environment which we have been considering, however, is not the only world in which we human beings live nor to which we are related. Over and above it there is for us another world as well, a conceptual environment in which values are also to be discovered and towards which sentiments are also directed. Indeed, it is only in the light of the conceptual values that we can discern value in the physical world at all. This other world is the distinctively and peculiarly human world of abstract ideals, in which the values are ideal values; and in relation to these what may properly be called ideal sentiments come to be formed.

Though the ideal world exists as such only in our thought, and indeed is a product of our thought, it has its origin in experience. It is the spiritual counterpart of the physical world, freed by our abstracting thought from the limitations of space and time and from all the other individualising factors which limit physical beings to existence as concrete things. We do not discover in the physical world, the world of perception and sensation, *the* man, but this or that man, the individual Peter or Paul or John. We do not discover there *the* animal, but this individual

lion or that individual leopard. Nor do we find *the* living being there, but this oak or that eagle, this horse or that human being. Yet we have constructed from the physical world of individuals a world of arch-types in reference to which we judge of the natures of the individuals themselves and of their conformity "to type". Similarly, we do not discover in the physical world absolute being, truth, beauty, goodness or perfection; though our spiritual world, again, contains these in an absolute fashion. We find contingent beings, partial truths, more or less beautiful things, good things in some way deficient, and all of them lacking perfection in the world of our concrete experience. Yet our standards of reference presuppose exemplars in virtue of which only can we use the terms contingent, partial, more or less, deficient, lacking and the like.

¶ 12. OBJECTIVITY OF SPIRITUAL WORLD. Nevertheless the spiritual world in question is no less objective to us than the physical world in which we actually live. Indeed for many persons it is a more real world in the sense that they form their sentiments upon its ideal values rather than upon the participated being or truth, beauty or goodness, of the physical world. And their conduct shows that this is so.

Moreover, even for those who do not explicitly apprehend the ideal values as they exist in the conceptual world, nor refer the concrete things of the physical world to them as exemplars and standards, those values none the less are implicit in their thought; for they are inextricably interwoven and intermingled with all the concrete things which

appear to them to be worth while. We judge this to be good and that better as an end to be attained according to a best. We esteem this means or that to be more useful or practicable for securing the end we have in view according to a standard of use and practicability which implies perfection. For human thought proceeds not only by way of perceptual insight into the concrete relations between concrete objects but by way of conceptual insight also.

¶ 13. CONCEPTUAL INSIGHT. For most readers this statement will be so obvious that it needs no proof; but, if proof were wanted, one lies at hand in the fact that man possesses a language by means of which he expresses his thought. Though our language is a coarse and inexact instrument of expression for what is in itself a finely conceptual process, nevertheless that language is essentially conceptual throughout its entire texture. We cannot make the simplest statement of fact without introducing abstract concepts into our discourse.

A better proof lies in the introspective analysis of one's own objective consciousness, in which abstract concepts as well as individual percepts are to be found. We not only shake hands with a friend, drink a glass of wine with him, or pay for it with a coin. We also think man or wine or gold in general; and it is with reference to abstract thoughts of this kind only that we apprehend any values of truth or reality in the concrete objects surrounding us. Thus, we believe our friend to be a true friend because he approaches the standard, as we conceive it, of absolute friendship.

The wine is judged to be good wine because it fulfils our notion as to what good wine should be. And the gold is held to be real gold only if and when it is in accord with the concept we have formed as to the essential characters of gold.

The best proof of all, however, lies in the existence as objects of thought of the spiritual ideals or values towards which sentiments are directed, and in the influence which these undoubtedly have upon the formation and maintenance of character. However we came by them, we certainly do possess such notions as those of justice and honour, mercy and truth, unselfishness and duty. Yet there are no such entities as honour or justice, mercy or unselfishness, in our physical environment. At most there are honourable actions or just ones, unselfish or merciful behaviour. Or, better and more exactly expressed, there are individuals conducting themselves honourably, behaving unselfishly and the like.

These spiritual ideals of a moral kind, though they form only a part of the world of abstract reality, are, or at any rate can be, stimuli to behaviour no less urgent for us than are the stimuli of the physical environment. Because of a strong sentiment of justice there are many who have suffered persecution for justice's sake. Many have stifled the powerful solicitations of instinct in pursuit of an unselfish ideal or a call of duty. Social, moral and religious ideals are strong incentives to action and motives for conduct which few of us entirely lack; and these ideals, abstract though they are, can far outweigh the pressure of concrete motives upon us if once we have made them our own.

¶ 14. DUAL ENVIRONMENT OF MAN. All these considerations imply that human beings belong to two worlds at once and live under the influence of a double environment. We have sufficiently emphasised the fact that environment, as well as the physical and mental constitution of the animal, has to be taken into account in the explanation of its behaviour. Indeed, it was by a consideration of the orientation of the creature towards biologically useful ends, which are only attained by the manipulation of environmental stimuli, that we were able to reach our conclusions in respect of instinctive or unconscious will. Environment, here again, has to be taken into account in attempting to explain the operation of volition in the strict sense as exemplified in conscious resolution and choice. But it is not the physical environment alone which we now have to consider. It is the ideal environment within which our thought moves, and in respect of which we evaluate the worthwhileness of physical ends and aims.

¶ 15. HIGHER AND LOWER NEEDS. If we may legitimately draw a distinction between higher and lower powers in man, this spiritual world is related to his higher mental constitution in the same way as the physical world is related to his lower mental and physical constitution. No less than the other it provides stimuli for behaviour and objects in relation to which sentiments come to be formed. More than this, it provides the values corresponding to the higher human needs in the light of which all other values in concrete reality are judged.

The lower needs, if those which activate appetite and

instinct are so to be called, are correlated with the physical wellbeing of the individual and of his kind. They are satisfied by food and drink, to repair the katabolic changes in the organism; by withdrawal from or destruction of dangerous enemies; by sex activities and the like, to preserve the integrity of the animal and the continuation of his species.

Man's higher needs are correlated with satisfaction of an entirely different order. Consciously entertained by most people, but implicitly felt by all, they are the intellectual craving for truth, the aesthetic longing for beauty, and the volitional yearning for goodness. But this is to state the matter abstractly; and the needs themselves are in no sense abstract but wholly concrete. They are the needs of a unitary person; and, though stated above as if they constituted three separate and irreducible needs, they are in fact only one and the same in differing guises. Goodness, beauty and truth are aspects of the same ideal objects in relation to the same unitary mind; and their pursuit in satisfaction of a single need of the spirit makes for fuller self-expansion and self-realisation.

*It is in the participation of these aspects of the ideal by objects in our physical environment that the explanation of our rational desires in respect of the latter consists. Since no one of such objects comes up to the standard of the ideals, no one of them can compel our reasonable acceptance. We may and often do accept them by reason of instinct. We may be moved by motives that we have never consciously made our own. But fully reasonable conduct can only be explained in principle by motives which are

motives only because they are ours; adopted because of evaluation by reference to ideal and spiritual values. Human conduct, at least in part, is such that merely instinctive principles fail to explain it. We shall find its explanation only in the mental constitution of man and the spiritual environment in which he lives.

¶ 16. PROCESSES OF FORMATION OF IDEALS. It has already been said that the spiritual or ideal world is the product of human thought; but that it has its origin within concrete experience, for we do not experience it directly, or in any sensorial fashion. The mental processes by which we come into the possession of the ideals of the spirit are two in number. They are abstraction, on the one hand, by which we draw out from experience what is actually to be found within it; as, for instance, when we consider the shape of triangles without considering their colour or any other of their properties. We thus come to form the notion of triangle in general; of which abstract concept all concrete triangles are examples. By this sort of process we draw out the abstract quality which is common, say, to all just actions, or to all people acting justly in whatever variety of circumstance; and we thus form a notion of justice which is exemplified whenever a just act or person is met with in concrete experience.¹ By a superimposed synthetic process

¹ To be sure, as we have already seen, such concepts are completed by the occurrence of the second process of correlate-eduction. Our concepts of triangle or justice are concepts of perfectly mathematical triangle and perfectly absolute justice; and these are never found within experience. They cannot, accordingly, be derived from it by simple abstraction.

we can even go further than this in the formation of such concepts. It may be that we have never experienced a blue triangle; but suppose we have experienced both triangles and blue shapes of other kinds. Abstracting blueness from the latter and shape from the former, we certainly can represent to ourselves a blue triangle. In a similar way we can reach the concept of justice tempered with mercy, honour which must be cruel, or unselfish egotism.

The other process is that of correlate-formation, which passes beyond all that is to be found in experience. It was illustrated in chapter II where an account was given of the occurrence in thought of such concepts as that of God. By this process not only are the merely abstracted concepts completed and rounded off, as it were, but entirely novel ones (in the sense that nothing like them is to be found in experience) are produced. Thus Heaven may be conceived as a place where the souls of the blest have golden harps and crowns; or the final state of the virtuous may be conceived as the utter unconsciousness of Nirvana. Places, harps and crowns we know in experience. Unconsciousness as such we never have experienced in any way.

¶ 17. IDEAL VALUES. By these processes of human thinking the spiritual world in which we contemplate the ideal values comes to being in our thought as something objective, something over and against ourselves, towards which we can aspire. Its values for us are real values in spite of the fact that we may recognise that they have no separate subsistence in themselves, but are in fact no more than the

products of our thought working upon physical and concrete reality; that their reality is that of the physical world from which they are educed. Human sentiments become directed towards them none the less, with all the conative energy that sentiments imply. Not only, as has been said, do these values form the archtypes by which we judge of all other values; they form also the objects of desire and so account for the persistence of motives which is the characteristic of human volition. It is because we value justice or honour in themselves, and hate injustice and dishonour in any concrete form or shape, that we persist in trying to be just and honourable in face of motives urging us in other directions. It is because we have formed a sentiment towards duty for its own sake, as something in itself worthwhile, that we try to tread the path of duty in all our concrete behaviour despite the allurements on either hand to step aside. Persistence of motives is secured by sentiments aimed at ideals. The driving force beneath all behaviour and all conduct may be instinctive; the direction in which it is applied is not necessarily determined by the instincts. In the language of the psychoanalysts, these may become sublimated, and all their energy drained away from the native and instinctive channels to flow in the service of the highest conceptual ideals and towards the prosecution of supreme values. This is not to say that human beings act, any more than any others, in the absence of motive, or that there is no common energy to subserve resolution or choice. It is to point to the fact that other than physical motives play upon us and help to shape our characters and lives.

¶ 18. PRACTICAL CONCLUSION. There is a very practical conclusion to be drawn from the considerations put forward in this chapter. It is this. The training of character which is the aim of all education depends upon the engendering of ideal values in the mind of the child, and the growth of sentiments in their regard. We cannot implant the ideals ready made in his mind. Like all other concepts he must abstract them for himself from his own experience. But we can assist in their formation by providing him with the experience from which he can abstract them. And we can do this before the crudely instinctive motives have so far been acted upon as to have engendered a habit or sentiment in their own regard. We can, for example, point out to him instances of cruelty, which he can well understand from his own experience of little unkindnesses and rebuffs sustained by himself, in such a way as to provoke in him a sentiment of dislike of cruel actions and cruel people, before his instinct of curiosity leads him to investigate the consequences of pulling the cat's tail or the anatomy of flies buzzing upon the window-pane. The illustration may be crude; but it is to the point. And the reader may easily supply a score of others to the same effect. In this way the child will be led to form desirable sentiments, even stronger than single instincts, by which his behaviour will be guided throughout life. For, against popular belief, the higher mental constitution even of the very young child in this resembles that of the adult, that he can already, at least to some extent, appreciate ideals and undergo the process of sentiment formation in respect of values.

CHAPTER VIII

CHARACTER AND TEMPERAMENT

1. MEANING OF TERMS. When we use the expression "a man of character" of any one we mean as a rule to emphasise some outstanding feature of his personality. But we speak of weak as well as of strong characters and of loosely integrated as well as of firmly knit ones, thus attributing some sort of character to every one in varying proportion or degree. Whatever character may be in itself, our language shows that we look upon it as a relatively stable determinant of consistent action; and if we analyse the expressions in which the term occurs we find that it always has reference to aspects of the will.

On the other hand, when we speak of a person as being temperamental we again emphasise a feature of his personality; but in this case, since we look upon temperamental people as lacking consistent principles of action, we find that its reference is in the main to emotion. The behaviour of such people is liable to be exceedingly unstable. The so-called "artistic temperament", for instance, is often made the excuse for lack of solid character.

Both terms thus signify orectic qualities rather than noetic ones; though, as we shall see, intellectual capacity is also involved in the formation and maintenance of character.

Though often employed loosely in ordinary speech, being sometimes contrasted and sometimes nearly if not quite synonymous, it will be convenient to make use of the

historical distinction between them, and by temperament to signify the innate constitution of the individual mind as conditioned by the physical constitution of the body, and by character to express that same mental constitution together with all the acquired sentiments and habits by which minds come still further to be differentiated one from the other. Character will thus be more comprehensive than temperament; for it will embrace a greater number of factors; and in particular it will include sentiments directed towards the abstract ideals which were considered in the last chapter. This is doubtless the reason why the term is only used of human beings, who alone are capable of forming sentiments of this kind.

¶ 2. INDIVIDUAL DIFFERENCES: TEMPERAMENT. Even in pre-philosophical times individual differences in the human constitution as shown by the conduct of different people were recognised. It was not only observed that the people of one country differ from those of another, but that individuals differ also in a variety of ways even as members of the same community or family. One man is brave while another is a coward; one is dogged and pertinacious while another is weak-willed and flighty; one is intellectually well equipped while another is stupid, or a fool. The problem accordingly arose as to how, while all are essentially alike, they should differ in so many important respects. This problem was not merely theoretical. It was an intensely practical one; and the earliest attempted solutions arose in the sphere of medical practice, in which the doctrine of the

temperaments was formulated. The Father of Medicine himself observed that external causes (*e.g.*, food, locality, climate) have their influence upon mentality as well as upon bodily metabolism; and he put forward the view that the means through which such agencies worked were the so-called "humours" of the body. He conceived the disharmonious mixture of these to be at the root of all human ailments. This was a medical doctrine; but it was based upon the philosophical conception that like all others vital activities depend upon the mixture of the four recognised physical elements, fire, air, water and earth.¹ By the theoretical combination of their respective qualities (heat, dryness, moisture and cold) in varying proportions, a quantitative doctrine of temperament was advanced to account for individual differences in behaviour.

Five centuries later substantially the same doctrine was advocated by Galen. But philosophical speculation had advanced; and Galen, distinguishing between body and soul, taught that the latter is favourably or adversely influenced by the mixture of elements in the body. Affection, timidity, bravery, hopefulness and the like, as mental attitudes, were thus explained as being the results of the varying proportions in which the physical elements were compounded.

With slight modifications this classical doctrine of the temperaments held the field until comparatively recent times; an echo of it lingering still in current terms of ordinary language. It was supposed to give an account of four (sometimes five) principal types of people, the sanguine, the

¹ Empedocles.

choleric, the melancholic and the phlegmatic, so named because of the theoretical predominance of one or other of the humours in the bodily mixture. In the first type the blood (hot and moist) dominates; and the consequent excess of vitality, the seat of which is located in the heart, is exhibited by the physical characteristics of vigorous health, florid complexion and fair hair. Mentally, people of the sanguine type are said to be retentive, but inconstant; they are witty and pleasure seekers. The choleric type, determined by excess of bile (warm and dry), is dark haired and swarthy. Since the seat of desire was located in the liver, this accounts for the fact that choleric individuals are mentally impetuous, passionate and ambitious. Melancholics, in whom the black bile (cold and dry) is superabundant, on the physical side are typically lacking in vitality and inclined to neurasthenia. They are emotionally suspicious, moody and gloomy. Lastly, phlegmatics (cold and moist) are physically pale, flabby and of poor vitality; while they also lack powers of concentration and memory, and in general are sluggish minded.

Though this old explanation of differences in character being dependent on physiological temperament is no longer advanced, the classification of the temperaments was fairly constant for many centuries; and, despite discrepancies in the use of the terms by different authors, the upshot of it was to stress the importance for character of the physical constitution with which the individual is naturally endowed. This also, as we shall see, is the upshot of more recent work carried out upon the subject.

¶ 3. EXTERNAL OBSERVATION. It is evident that no one of us has a direct means of access to the mind of any person other than himself. At most we can study his bodily phenomena from the points of view of structure and function; and, by observing the influence of external factors upon it, and of one internal part upon another, we can reach the conclusion that more or less definite types of reaction to stimuli (*e.g.*, adapted or mal-adapted, energetic or lethargic, slow or quick, emotional or calm) are connected with more or less permanent dispositions of a physiological kind. And we can interpret these reactions mentally on analogy with our own. To some extent modern research has demonstrated that this is so; there are temperamental differences, analogous to those suggested by the Ancients, in which physiological and psychological phenomena are intimately connected, alterations in the one series being accompanied by alterations in the other. Since changes can be brought about in the mental series by chemical and physical action upon the body, it is reasonable to suppose that the physiological temperament is the cause of the temperamental factors underlying and integrating with character as a whole. Such changes, for instance, are exemplified by the mental effects produced by drugging with indian hemp, alcohol or bromide; or in a still more illuminating manner by the results of dosing with certain organic products, such as the secretions of the endocrine or ductless glands, which are manufactured by the body itself.

Generalising, we may accept McDougall's statement that a man's temperament is "the sum of the effects upon his

mental life of the metabolic or chemical changes that are constantly going on in all the tissues of his body";¹ but of those changes we know very little in minute detail.

¶ 4. SECONDARY FUNCTION: PERSEVERATION. More explicit, if more restricted, are the conclusions of workers like Müller,² Heymans and Wiersma³; whose experiments led them to assert the existence of a "secondary function" of the nervous system in virtue of which the mental phenomena of "perseveration" are to be explained. The persistence with which the nonsense syllables Müller had been learning by heart tended afterwards to come to his mind (a common example is the "tune which runs in one's head"), while his wife was not affected in the same way; the rate of subsidence of the effects of sensory stimulation, as shown by the varying speeds with which a colour-wheel has to be spun in order to secure fusion of the colours for different individuals; the degrees of inhibitory effect the performance of one task has upon the immediately subsequent performance of another; these show that there are individual differences in the perseveration of mental process which the investigators have attributed to the amount of "lag" or inertia in the nervous system.

¶ 5. ENDOCRINE GLANDS. More explicit, again, are the conclusions of Cannon⁴ and others as to the connection of emotion with the activity of the endocrine glands, and in

¹ *An Outline of Psychology*, London, 1923.

² *Experimentelle Beiträge zur Lehre vom Gedächtniss*, Leipzig, 1900.

³ "Beiträge zur Speziellen Psychologie auf Grund einer Massenuntersuchung", *Zeit. f. Psy.*, 1906.

⁴ *Bodily Changes in Pain, Hunger, Fear and Rage*, New York, 1915.

particular with that of the thyroid and supra-renals. In the present state of knowledge with regard to the endocrines it is unsafe to generalise unduly. A number of them have been studied; but their secretions have been determined and their function ascertained only in about half the number of cases. Directly or indirectly, however, all of them appear to have to do with the control of metabolism and with mental and bodily growth, as well as being most intimately connected with the orectic life of the individual. It seems to be clear, moreover, that they are not independent of one another, but form a mutually regulative system the functioning of which is in closest connection with that of the nervous system as a whole. We may accordingly consider the activity of the neuroglandular apparatus a principal part of the physiological basis of temperament¹; but we can hardly go so far as Berman², who attempts to supply far greater precision and detail in the determination of the temperaments, or what he calls "endocrine personalities", in his interesting volume. This author assigns a number of physical traits as well as definite mental and moral characteristics to the predominance of activity of different ductless glands, and particularly of the thyroid, adrenals and pituitary respectively.

Others approach the subject from a different angle. Jung,³ for instance, whose work is purely psychological and clinical, is ready to believe that physiological causes may play their part in the determination of his well known

¹ Cf. Kretschmer; *Physique and Character*, London, 1925.

² *The Glands Regulating Personality*, New York, 1921.

³ *Psychological Types*, London, 1923.

"extrovert" and "introvert" types; and he observes that reversals of mental type may have their repercussion on the physiology of the organism.

6. PSYCHONEUROTIC SYNDROMES. One of the most recent and, so far as it extends, one of the most exact investigations, is that of Moore¹, who makes use of the correlational method for the treatment of his data. Though this work is concerned with insanity, its conclusions are generally applicable to normal people also who suffer neither the excess nor the defect of the insane. Moore, after conclusively proving the existence of eight psychotic syndromes empirically, gives reasons for regarding them as neurological defects of a definite kind affecting general mental ability ("intelligence"), emotionality, and the like. One of the most interesting facts thus established from our present point of view is that of constitutional hereditary depression which, as he says, "indicates an hereditary factor that attacks the controlling mechanism of emotional life or heightens emotivity, but leaves the cognitive general factor untouched."

A similarly hereditary factor on the cognitive side is indicated by the studies which have been made of the inheritance of genius and feeble-mindedness. The interest, however, of Moore's syndrome lies in the alternative explanation which he gives of it; since it may be conceived either as a quantitatively variable element in itself, or one in respect of which there is a mechanism of control which may break down.

¹ "The Empirical Determination of Certain Syndromes Underlying Præcox and Manic-Depressive Psychoses", *Am. J. Psychiatry*, January, 1930.

From the foregoing references, which might be almost indefinitely multiplied, it will be seen that the tendency to explain mental temperament by reference to temperaments of a physiological kind is as marked in modern psychology as it was in ancient medicine and philosophy. It will also be appreciated that, while great progress has been made in definite knowledge from the doctrine of the "humours" to the more recent views on the functions of the neuroglandular system, we are not yet in a position to state the physiology of temperament exhaustively, nor to relate this in a point to point manner with its mental analogue. At most we can hold that something is known of a certain number of factors of a quantitative kind, different dosages and combinations of which are possible in different individuals. These will be conceived as having a general influence upon the way in which the instinctive dispositions and their derivatives operate. The problem as to how, if at all, the native dosages can be altered by physical means is a fascinating one; but it is beyond the scope of this work. The further problem as to how the physiological temperament can be influenced by purely mental processes will be discussed at the end of this chapter.

¶ 7. MENTAL TEMPERAMENT. We are on surer and less speculative ground when we consider the factors which constitute temperament in their purely mental rather than in their physiological aspect. The work to which reference has already been made as establishing the general factor of perseveration included the recurrence to mind of nonsense

words previously learned, the fusion of colours rotated upon a colour wheel, the performance of simple mental tasks such as perceiving, recognising and crossing out letters and the like. These are mental performances whether related to bodily processes or not. Perseveration, accordingly, can be and is in fact established as a mental principle independently of whatever physiological substrate it may have. It is a general quantitative factor varying from one individual to another and influencing all his reactions.

¶ 8. CONATION AND EMOTION. In like manner the emotional and conative constitution of individual minds may be investigated independently of any reference to the endocrine glands and nervous apparatus. When our knowledge is more comprehensive and exact it may undoubtedly be found that conative output and duration as well as emotionality are conditioned by the neuro-glandular system.¹ But in the mean time, and independently of this, the data derived by Burt² from his study of delinquent children led him to claim that a general factor of emotionality exists, which underlies instincts and emotions in a way similar to that in which general intelligence has been proved to underlie all intellectual achievements. Individuals, according to this author, tend to be more or less emotional all round, and not only in one respect. And Grimberg's

¹ Indeed, we know that drugs, like chloroform and alcohol, or glandular preparations such as adrenalin, produce an effect upon the nervous system which has its repercussion upon the level and duration of conation and upon degree of emotionality, which is in striking contrast to that of the alkaloids.

² *The Young Delinquent*, London, 1925.

clinical studies¹ of criminals in the making, of whom he investigated some five hundred cases, led him to the same conclusion with regard to emotional instability. It is a moot question, however, whether this instability in point of fact is anything more than the lack of the habitual conative control which has been demonstrated to be a general factor by Webb.² Undoubtedly in the absence of control great emotionality will carry all before it. Gusts of passion may make shipwreck of the soul when reason and will have abandoned the helm.

¶ 9. EXPERIMENTS ON CONATION. Experimental investigations of conation have also recently been made with the principal stress upon the mental aspect, although the physiological side has not been entirely neglected. One kind of conative phenomenon is that of the fluctuation or oscillation of attention. This is certainly a general factor bearing upon orectic as well as upon cognitive process, although experimental work upon it has been carried out mainly on its cognitive side. Phenomena illustrative of this factor of oscillation are the faint ticking of a watch which is heard and not heard alternately; the alternate coming and going in consciousness of the faint grey ring on the white background of a Masson disc; or the alternations of perspective seen in simple line drawings such as hollow cubes or truncated pyramids shown in plan. Another kind of illustration of the same phenomenon is found in the fluctuating amounts of

¹ *Emotion and Delinquency*, London, 1928.

² *Loc. cit.* Cf. also Moore's alternative account of the way in which his hereditary factor of constitutional depression may work.

work performed from moment to moment in simple mental operations such as adding columns of figures. There is a rhythmic rise and fall in the output of work in even very brief adjacent periods of time; and Philpott¹ has shown that there is also a summation of these rhythmic variations which extends over considerable periods. Rhythmical fluctuations of this kind may be ascribed to the operation of, and recovery from, fatigue supervening upon the activity concerned; and differences in the nature and periodicity of the rhythms would also contribute factors towards differences in temperament. Oscillation is thus seen to be a special case of the working of fatigue; and, as has already been noted, it is susceptible to a certain degree of control.²

From a broader point of view the question of conation merits more close consideration. In general, conation is the striving by which we seek to satisfy our wants, to attain the ends at which our native and acquired dispositions aim, to carry out the purposes of our will. Such striving may be pursued upon different levels, high or low, of activity; it may be persistent and sustained or fitful and easily abandoned. Clearly this also must constitute an important factor of temperament. We find examples of such differences in level and persistence of behaviour throughout the animal kingdom; and we discover no less striking instances in our own conduct.

¶ 10. CONATIVE LEVEL. So far as the level of conation is concerned, this may be related to the amount of available

¹ *Fluctuations in Human Output*, in preparation for press.

² Cf. chap. v.

energy at the disposal of the organism at the moment; and it has been shown¹ that the output of mental energy in the case of any individual tends to be constant in amount. Accordingly, if energy is employed in any one direction, to that extent it will not be available in others. If one form of instinctive behaviour is being energetically pursued, other instincts and habits have little chance. If a habit is draining energy away, there will be less opportunity for some unrelated instinct to operate. Or, if we are really busy in the prosecution of some ideal, instincts and habits alien to that ideal will to the same extent be deprived of the energy necessary to actuate them.

¶ 11. PERSISTENCE. The persistence of any particular conative activity, however, will depend partly upon the operation of fatigue, as we have seen to be the case with respect to oscillation, and partly upon the operation of conative control. In so far as it is dependent upon fatigue, it can perhaps be said to be temperamental. But in so far as conative control is operative, it would seem more properly to be a true quality of character; since it is immediately referable to the will.

¶ 12. INBORN TENDENCY AND VOLITIONAL HABIT. Evidence has already² been brought forward to show that a radical distinction is to be drawn between actual willing (decision or resolution) and the striving which gives effect to the determination of the will. It will be remembered also that

¹ Cf. Spearman; *The Abilities of Man*, London, 1927.

² Chap. v.

the will-element, "w", emerging as the result of the fine research of Webb, was identified by him as being in close relation to "persistence of motives", and accordingly as best agreeing with the determining tendencies set up by volition and distinguished from similar tendencies of an inborn kind. The significance of this conclusion in respect of temperament and character lies in the distinction between the conative level and persistence of the inborn tendencies on the one hand and that of tendencies created by will-acts on the other. These latter, as we have seen, may influence the former; they may even run counter to them and overcome them. The distinction is not essentially one of nature, but of the origin of the several kinds of conative tendency; and the question accordingly arises as to whether habits set up by will-acts are not themselves also temperamental, at least in the sense of having a physiological basis.

¶ 13. REINFORCEMENT AND INHIBITION. Webb did not investigate will-acts themselves as Ach did. His research was directed to the discovery of the kinds of character-qualities which tend to occur together in individuals; and its results were based upon an elaborate statistical treatment of data derived from estimates of various mental and moral qualities displayed by a large number of persons. These estimates were made by competent judges; and clearly could only be formed after careful and prolonged observation of the behaviour of the individuals whose qualities were to be assessed. Observation of behaviour, however, is not observation of the will, except inferentially; and it is by inference

that Webb concludes that deliberate volition accounts for that "persistence of motives" which accompanies the group of solid moral and social qualities as contrasted with the instability of the emotions which goes with that of the more superficial ones. Read in the light of Ach's research, this would mean that consistency of action in the case of the moral habits is due to previous resolutions taken by the will, and is to be sharply distinguished from the inconsistency of action due to emotionality.

¶ 14. VOLITIONAL HABITS. Once a particular volitional habit is formed, however, it is assimilable to a native instinct, and appears to operate in a precisely similar manner. It is stirred into activity by an appropriate percept or image; it is strengthened by exercise; it is quantitatively variable in different individuals; it becomes part of their "second nature". Though it may not be temperamental in the sense of being inborn, there would seem to be no good reason for denying to it a physiological aspect strictly comparable to that of the instinctive dispositions.

That this is so in the case of bodily habits deliberately created by will-acts is clearly evident. Walking, bicycling, type-writing, or skilled actions of any kind, once they have been voluntarily and perhaps painfully acquired, later on come to function with little or no consciousness whatever. The same apparently holds good in the case of at least many habits of thought and moral action, so far at any rate as voluntary effort is concerned. For though the attainment of such habits may necessitate repeated acts of will and painful striving, once they are attained we tend to think in the

grooves our effort has worn, and to carry out the moral routine it has facilitated, in a way similar to that in which we fold our clothes at night or shave ourselves in the morning. Instinctive dispositions and habits, whether acquired by conditioning or by deliberate will-acts, thus all seem to be on exactly the same footing from the dynamic point of view. Though it would be an error to regard any one of them as an entity in its own right, since they are merely attitudes of the individual, they may be considered as capable of mutually reinforcing or inhibiting one another. Thus, as we have seen, one instinct may ally itself with or oppose another instinct. So, for instance, pugnacity may reinforce or inhibit sex, according as it is directed towards a rival or towards the desired mate. So, again, an acquired disposition or habit may inhibit an instinct, as when fear of the dark gets the better of the child's impulse to seek the jam on the shelf in a dark room. Or a moral habit may counteract an instinct, as when habitual benevolence and pity for the afflicted leads one to deny himself in order to give an alms to a poor man, or contribute towards the support of a hospital, or send slum children to the country for a holiday, or even to found a home for stray animals. These last instances give us a clue to the nature of character as something more than mere temperament; for it shows how an abstract ideal may prompt actions of the most diverse kinds. We shall see also that it helps us to understand the full significance of such work as that of Webb, Lankes and others, who have shown that the moral qualities and deeper social virtues tend to be grouped together in individuals, and that this is due to the deliberate

volition which can at least to some extent counteract the temperamental dispositions.

¶ 15. DANGER OF ABSTRACTIONS. To conceive of all these dispositions as capable of alliance and hostility in the manner suggested above is no doubt a highly abstract procedure; but the reader has already been put upon his guard against the danger of reifying abstractions. In point of fact what has been said means no more than that the individual cannot act in contrary ways at the same time. Dispositions are proximate principles invoked to account for different kinds of behaviour more or less consistently followed out. They are attitudes of the individual. The ultimate principle, as we shall see in the following chapter, is the individual person whose attitudes they are, and who is at once the real and the sole agent.

¶ 16. "SPREAD" IN BEHAVIOUR. Principles of instinctive behaviour and of habitual behaviour immediately derived from it, even by way of deliberate volition, are highly specific in their operation. They do not extend their sphere of action beyond the particular kinds of stimuli or situations which are apt to call out their activity. They have little or no "spread". The angry man behaves in one way, the man who is afraid in another. It does not follow that because a child has learned to read he has thereby also learned to write or to cypher; nor because he has been taught by experience to refrain from teasing the cat that he will not follow his destructive instinct of crushing flies upon the window pane. Nor can we conclude, because a man takes pride in

his appearance and is habitually careful about his dress, that he will be equally careful in the way he arranges his papers and books, or refrain from flicking his cigar ash upon the carpet. A habit of tidiness in respect of clothes applies to clothes, and has no necessary application to anything else.

Instincts, habits and even concrete sentiments, considered thus in the abstract, may be conceived as isolated or unrelated psycho-physical mechanisms which are set going by their appropriate stimuli, all being conditioned by the temperamental factors (perseveration, emotionality, oscillation or control) discussed above. Even on this level, however, as he actually exists the concrete individual is no mere bundle of tendencies, nor even an integrated hierarchy of dispositions, instinctive or otherwise. He is a unitary being who will react in one or other of these specific ways according to the original endowment of his nature and the character of the experiences through which he has passed.

¶ 17. "SPREAD" IN CONDUCT. Habitual conduct which is based upon abstract ideals, on the other hand, is on an entirely different level, and is not specifically restricted in this way. The principles of such conduct are not limited in their sphere of application to particular stimuli or situations, and may have an exceedingly wide "spread"; so wide indeed that the entire mental and moral life of the individual may be patterned upon those ideals which he has approved, accepted and made his own.

¶ 18. EXPERIMENTAL CORROBORATION. This fact was already briefly considered in a more speculative way towards the end of the last chapter; but there is much experimental

evidence to corroborate what was then said. This is derived from a number of researches the conclusions of which all converge towards the same point. The earlier work of Ruedeger¹ is well known. This investigator trained a class of school children in such a way as to create a habit of neatness in connection with one particular task which they had to perform; and he found that the acquisition of the habit as far as that task was concerned had no influence whatever on the neatness displayed by the children in any other direction. It was a mere specialised habit and had no "spread". In their other tasks they were as untidy as ever. He then put before the same children an ideal of neatness in the abstract as a general quality desirable in itself; and before long the effects were seen to extend in a marked degree over a very considerable area of their conduct. It should be observed that this ideal of neatness, towards which a sentiment had been induced in the minds of the children, was abstract, and that this fact explains the extension of the range of the habit beyond that of the one first acquired. But there are ideals still more abstract than neatness in school work; and we shall see that the extent of the habit grounded upon sentiments appears to be correlated with the degree of abstraction of the ideal. Thus neatness and tidiness in school tasks is an ideal less abstract than orderliness in all things, including the way in which one thinks. Truthfulness, justice, temperance, benevolence, and the like, similarly all fall under the more general ideal of duty.

¹ Cf. "Improvement of Mental Functions through Ideals", *Educational Review*, xxxvi, 1908.

C. 19. CORRELATION OF CHARACTER-QUALITIES. This line of consideration is borne out by the research of Webb to which reference has so often been made. Webb found that certain qualities of temperament, character and intelligence tend to occur together in individuals. He was able to demonstrate that persons gifted with profound intelligence and common sense tend also to possess a calm temperament and exhibit a lack of egotism, the deeper social attributes and considerable mental activity, as well as giving evidence of determination in the purposive performance of duty. On the other hand, persons having a quick rather than a profound intelligence and originality rather than common sense tend to show a marked temperamental emotionality, strong egotism, the lighter social attributes, considerable bodily activity and proneness to the pursuit of pleasure.

Here we have pictures of two sharply contrasted characters; and whatever it may be that distinguishes them its range extends much further than that of the habit of general neatness investigated by Ruedeger. What is this factor? Webb, as we have seen, identifies it with the persistence of motives secured by deliberate willing. The lack of egotism, the deeper social virtues which he lists, such as trustworthiness, conscientiousness, kindness on principle, fair play, reliability in friendship and the like, are all included under the more general ideal of duty to be performed, which the research shows was pursued by the individuals possessing these qualities. And this fits in well with the intellectual attributes of profundity and common sense which the same individuals display. For profundity and

common sense are precisely those characters of intelligence which are necessary to appreciate the value for life and social intercourse of abstract and remote ideals. On the other hand, the lack of the ideal of duty as a persistent and effectual motive would easily account for the absence of control, the emotionality and shallowness, the selfishness and pleasure seeking, which fill in the details of the second picture. This also well agrees with the superficial though quick intelligence and the original rather than sound judgement manifested by persons of such character and temperament.

¶ 20. CHARACTER AND WILL. The factor which differentiates the two kinds of character is the intelligently directed will. The individual who is able to grasp high ideals and voluntarily make them motives of his own and identify himself with them, if necessary even by repeated acts of willing, is shaping and maintaining his character. At the same time, though perhaps he may never reach it, he is tending towards the point at which no further effort of maintenance is necessary. He is controlling the factors of his original endowment, his instincts and the general temperamental conditions under which they function. Consider several instances of such control of the instinctive impulses. The congenital attitude of fear, the impulse of escape, originally provoked by sudden sensory change and later on extended to other stimuli by reason of conditioning or similarity, may be counteracted. The emotion of fear may remain; but the conduct ensuing will not be fearful. In innumerable cases during the great war, for instance, men

kept their fear in check and behaved with the utmost courage by holding before their minds ideals of patriotism, honour, self-respect, duty or religion.¹ Anger similarly may be controlled by considerations of justice, the rights of others, one's own moral dignity or the like. And lust may be held within bounds by kindred personal ideals of self-regard, of holiness or purity. All these ideals are exemplifications of the supreme ideal of duty, the pursuit of which for its own sake may ramify through and through the entire conduct of the individual who conceives it and wills to act upon it. The performance may be arduous, but like all others it becomes facilitated by practice; and in the practice of conquering wayward impulses by will-acts directed towards self-approved goals consists the training of the will.

But, as we have seen,² there is evidence also of the way in which the will can influence temperament. Perseveration, oscillation, emotionality can to some extent at least be controlled. And it is this fact which enabled Lankes to conclude from his experiments on the first named of these temperamental factors that the self can modify and directly counteract its own nervous system and its innate tendency in one direction or the other. It is this which allowed him to end the account of his exhaustive research with the inspiring words "Man can make something of himself, in spite of what nature and inheritance have endowed him with."³

¹ Cf. Aveling; "Notes on the Emotion of Fear as Observed in Warfare", *Brit. Jour. of Psy.*, October, 1929.

² P. 101.

³ *Loc. cit.*

CHAPTER IX

THE SELF OR PERSON

¶ 1. COMMON SENSE OPINIONS. In order to express their speculations and their doctrines, philosophers and men of science necessarily make use of the language current in their day; but to many of the terms they employ they impart a special significance. Moreover, when ordinary words fail to convey their exact meaning they coin technical terms to embody the finer shades of their thought. These tend in time to pass over into common use and take their place in the common vocabulary. In this way the speculations and conclusions of science and philosophy both ancient and modern come little by little to penetrate into the body of received opinion which passes for common sense and profoundly to modify it. For common sense consists to a large extent of the debris of past speculation handed on by tradition. No doubt in the process the meanings of the terms undergo some change and the contexts of the original problems are often forgotten; but the monument of the doctrines is enshrined in our language, and their wraiths linger on in popular thought. The sun rises and sets and the stars are fixed in the firmament as in the time of Ptolemy. People are reckoned sanguine or phlegmatic, melancholic or choleric, as they have been for more than two thousand years. Indeed, we see the process taking place before our eyes in respect of modern science. The layman already speaks of the abstruse concepts of relativity and of

complexes, and perhaps even has some understanding of ~~what~~ those terms mean to the physicist or psychologist, although the work which leads to these conceptions has been carried out within the span of his own lifetime. Nevertheless old terms and habits of thought are not easily displaced by the new ones; and association requires time.

¶ 2. ANTITHESIS OF MATTER AND SPIRIT. A case in point with regard to our investigation of will and personality, is that of the sharp antithesis of matter and spirit, body and mind, which seems to be so much an affair of common sense, to be so obvious, that we are apt to forget that it is largely a legacy of very primitive thought and of philosophy. Indeed, though there may be nuances of difference from one mind to another, in the form in which matter and spirit are most popularly conceived and contrasted, it is the legacy of one particular school of thought. The essence of matter is extension, massiveness, solidity; while that of spirit is feeling, thought and will. This abrupt antithesis, however, in the course of history has had to bear the brunt of attacks both at the hands of philosophers and of men of science. Already, as we have seen,¹ the notion of matter as a merely quantitative thing had stripped it of the qualities with which it appears to us clothed in empirical experience. It no longer retained its colours, sounds, odours, and the like, as properties of its own. It was merely extended, impenetrable, resis-

¹ Chapter III.

tant, and of itself inert. A further step to be taken was to deny even these properties of it, and thereby in fact to deny its existence altogether. But this, to be sure, was philosophical speculation. It remained for modern physical science, however, working on mathematical lines, to dematerialise altogether the concept of matter as mass and to substitute for this a concept of centres of energy. All our cosmological notions, and especially those in respect of the nature of matter, force, space and time, are at present in the melting pot of mathematical physics. Continuous extension has successively been broken up; firstly into a discontinuity of indivisible though still extended material atoms. These in their turn have been displaced by protons and electrons, solar systems in miniature in which negative electric charges whirl at incredible speeds round a positive one. And at last we are being taught that matter must be conceived to consist of points of energy associated with waves, unlocalisable both in space and in time, and within limits absolutely unpredictable as to how, where or when they will manifest themselves. In other words, that which common sense naively considers to be in itself actually as it is given in experience, qualitatively, quantitatively, locally and temporally determined, is in fact determined in no one of these ways, but must be conceived, to some extent at least, to be possessed of freedom. The scientific dematerialisation of matter is complete. There is only one *caveat* to be entered in regard to the foregoing account of the matter; and that is that mathematical physics is akin to philosophy rather than to science.

¶ 3. THEORIES OF RELATION. Nevertheless, if matter is no longer to be looked upon as being in reality what common sense, following a former philosophy, holds it to be, it will be necessary to restate, and perhaps to modify, the historical theories which have been advanced as to the constitution of the individual self or person. Such theories may be classed under the two heads of dualism and monism, according to the number of intrinsic principles invoked to account for personality.

¶ 4. DUALISTIC THEORIES. Of the dualist doctrine there are two forms. In the one (ultradualism) it is taught that the body and the soul are two distinct real entities or substances endowed with different and absolutely irreducible properties. In the other (moderate dualism) it is held that the person consists of two intrinsic co-principles which together constitute him an individual or single entity complete in the line of personality. The former kind of dualism is by far the simpler to grasp, since it presents soul and body simply as two real existent things, the one spiritual and the other material. But the doctrine raises serious problems as to the relation which holds between these entities. The other kind is far more difficult to understand, since it requires us to conceive the person as constituted of a principle of matter, which of itself has no properties whatever but is a mere determinable potentiality, together with a principle of form, in virtue of which alone the individual has any properties. According to this theory, matter as such cannot exist. Without exception, every material body or substance is

always constituted by some form or other which actuates it; and in the case of the human person this form is the soul, or determining principle of his body, which is the ground of all his activities. Body and soul, accordingly, are not two existent entities but only one; and all the activities of a person, whether we distinguish them as bodily or mental, are activities of that single subsistent entity.

But, like the ultradualist theory, this one also raises serious problems. Among the observed activities of persons there are those of abstraction, judgement, creative thought, self-consciousness, volition and the like; and these activities display characters which seem to exceed the capacity of any principle wholly dependent upon a material organ for its functioning. For material organs are extended and their parts are distributed in space; whereas the mental activities just mentioned seem to require an inextended and incomplex subject. Those who advance the theory of moderate dualism accordingly, assert that there are some operations of human beings which indicate that the soul has certain forms of activity of a spiritual character proper to itself; and therefore—though it is not and never can be a person in the full sense of the term—that it has a substantiality on its own account and can exert an influence upon its own organism, just as the organism can influence it. To make use of a somewhat inexact illustration, the soul has been said to be immersed, though not wholly immersed, in matter; and might be likened to a swimmer whose body is in the water while he keeps his head above it. The theory, accordingly, is one of modified interactionism; and for this reason

it is classed with the dualistic rather than the monistic group.

Ultradualism, on the other hand, offers two solutions of the problem as to how an independent body may be related to an independent soul. The first is that of interaction, which is far more easily acceptable here, where there are supposed to be two things to interact, than in the case of moderate dualism, where there is only one. The second solution is parallelism, in which the events taking place in the body and the changes occurring in the conscious soul are conceived to run on parallel lines, but not causally to determine or affect one another in any way.

¶ 5. MONISTIC THEORIES. Monistic theories in general may be reduced to three types.

The first is that of materialism, in which the existence of a soul is denied and an account rendered of consciousness as a property of matter, or as an "epiphenomenon" superimposed upon the phenomena of matter. Mind has no causal part to play in the determination of the events of Nature, but is a mere accompaniment of the course of natural causation. This theory does away with any difficulty concerning the relations of body and mind by simply denying the existence of the latter as a substantial reality. But it is able to achieve this end only by making use of a concept of matter which is wholly mental.

In idealism or spiritualism the same difficulty of relating body and mind is overcome by the denial of the existence of any material substance independent of the mind. So far

as we are concerned, all bodies, including our own, are objects known by us; that is to say, as known they are mental and not physical or material objects. They are items or contents of consciousness; and all our notions of substance, cause and the like as applied to them are not in fact derived from them but from our immediate and insightful awareness of our own activity. The logical consequence of this doctrine is that what appears to a mind in the phenomenal shape of a body is in reality itself or another mind or spiritual activity. And so far as it goes this view would seem to be incontrovertible; though it certainly does not appear yet to have penetrated very deeply into common sense.

Lastly, there is a form of monism in which both bodily changes and mental states are presented as two parallel series of phenomena manifesting only one single real and underlying entity, the nature of which is not determined.

¶ 6. SIMILARITIES OF HYPOTHESES. All the foregoing are metaphysical hypotheses which we have met before in the earlier chapters of this book; but even from the exceedingly brief summary of them given here it will be seen that two interesting points come to light. Firstly, there is far more similarity between them than is usually admitted by those who uphold any one of them against the others. Clearly ultradualism cannot be made to agree with any form of monism. If body and soul are two entities, they certainly cannot be one. But, on the other hand, moderate dualism, up to a point at any rate, is monistic. Matter (of itself mere potentiality) and soul (actuality) constitute one individual

person, all of the physical and mental actions of whom without exception are his. For he is held to be one entity, not two. It is only when certain of the activities of the individual are considered to be extra-organic that the soul-principle is asserted to have a substantiality on its own account, and to be capable of an existence apart from the matter which it actualises as body. This view is in reality very close to that of the monism in which physical and mental events are regarded as indicating one sole underlying reality.

The three types of monism, again, are far more nearly alike than at first they seem to be. For matter is a metaphysical concept as much as spirit is, or that "something" underlying the two irreducible series of phenomena. With the exception of spiritualism, which makes the claim of discovering reality within experience, all forms of monistic theory rest upon a postulate of a hypothetical entity which cannot be verified in experience. That postulate, whether it be of matter or of some unknown substrate, must be adequate to the facts of experienced mental process; matter, or the hypothetical entity, must feel and think and will. And it would seem that it was only because of the concept of the ultimate nature of matter current at the time that so violent an incompatibility was set up between spiritualism and materialism, and the attempt made to meet the impasse by the double-aspect theory.

¶ 7. CONCEPT OF MATTER. The second interesting point is concerned with this very concept of matter as in itself an

entity characterised by spatial properties, essentially extended, and of itself inert. Clearly, it is this concept which was involved in all the acute controversy between dualists and monists, spiritualists and materialists. Extension is not thought nor thought extension; and, if both extended things and thinking things exist, then the questions arise as to whether extended bodies can think, or thinking things be extended; and, if not, what the relations between them can be conceived to be. The difficulties largely if not altogether disappear if we cease to look upon matter as mass and conceive it as energy or energies. As we have seen, that is precisely the view to which mathematical physicists are coming.

¶ 8. SELF-KNOWLEDGE: PERCEPTION. Leaving philosophical and scientific speculations for the moment aside, however, we may now profitably enquire what in fact are the available data upon which all scientific and philosophical speculations with regard to personality are based. What can we find in our immediate empirical experience that will help us to determine what the self or person is? There are three ways, and three ways only, in which a person can be said to know himself. The first, and possibly the most obvious, is perception. This is the process by which we apprehend a complex mental object as a unitary whole, discriminable from its surroundings. Thus we perceive an acorn, an oak tree, a wood, or a landscape.

But perception is a very complicated process; and an analysis of its products yields far more than at first sight

might be expected. We see, for instance, an orange lying upon a plate. What we actually see with our eyes is only a coloured shape; the nucleus of our perceived orange is entirely sensorial, though already constituted of colour, shape, and the relation between them. The orange, so far as visually apprehended, is a coloured shape, or a shaped colour. But we perceive it as far more than this. It is not merely a shaped colour; it is an odorous, sapid, smooth, spherical fruit, even though we are not at the moment smelling, tasting, or otherwise experiencing it in any sensorial way except by vision. If we put out our hand to grasp it, we shall feel its weight, resistance, texture and shape. If we cut it open, we shall find the familiar quarters, and perhaps pips. If we taste it, we shall experience its flavour. And so on. Even so far as our seeing it is concerned, we are only seeing its obverse side and not the reverse. Yet we perceive a whole orange, and not merely one side of it. All this supplementation of the sensorial nucleus which we apprehend is something supplied by us from our store of past experiences, or added by way of analogy with past experience. None the less the whole, in respect both of its apprehended and its supplementative parts, is sensorial. It consists of actually related sensorial elements together with reproductions of a like sensorial kind. Moreover, that whole is essentially a mental object and never a subject.

A precisely similar process occurs when I perceive my own body by vision, touch, or in any other sensorial manner. This, again, is always essentially an object for me,

and never a subject. I actually see parts of it; but I have never seen it as a whole; indeed parts of it, as for instance my eyes, the small of my back, my brain and nervous system, I have never seen and shall never see. I feel parts of it by touch and in general coenaesthesia; but I have never felt it all. The brain, for example, is insensitive to feeling. Yet I have supplemented what I have actually apprehended, or what I now apprehend, in the same way as I supplement in the case of my other percepts from past experience or by way of analogy with it. I perceive my body as an objective complex whole constituted of sensations and reproduced sensorial factors in intimate relation. My body thus essentially consists of objective sensorial elements and can be described only in sensorial terms; although in a peculiarly intimate fashion it seems to be related to me as the subject perceiving it. The important data here are the essential objectivity and sensorial character of the percept of one's own body, and the peculiar relation in which it seems to stand to the perceiving self.

¶ 9. INTUITION. Quite otherwise is the case in respect of the second way in which we can be said to know ourselves. When discussing in chapter v the experimental work which has been carried out upon volition, we saw that one essential part of the experience of resolving and of choosing is the living, or direct intuition of the self as a subject. This experience, as was there pointed out, has been interpreted in several ways; but in all of them it has been identified with the appearance of the self to itself in a most

intimate manner. Whether this be merely phenomenal or, as I have elsewhere maintained,¹ the phenomenon in this unique case actually is the profound noumenal reality, does not concern us here. But what is of the utmost importance for the determination of personality is the fact that this experienced self, at once subject and object, is entirely non-sensorial. It is in this respect utterly unlike the perceived body, or any other perceived object; and it cannot be characterised, as the body is, in any sensorial terms whatever. It is just "the self acting"; a real existent actualising; an active substance, in the sense that it is not a mere object but the ultimate subject of feeling, knowing and willing; a substantial activity, in the sense that, remaining identical with itself, in any series of its changes it is always apprehended as active, and never as inert.² This is the profound self of our innermost experience; and it is to it that the percept which we call our own body seems in some way to be so closely related.

What has been said is a matter of introspective analysis. But even did analysis yield no such positive result it might be argued that, if there were no intimate awareness of this kind of oneself, my body and yours would for me or for you be just bodies, and neither yours nor mine. Moreover, they would be bodies unknown; for without a knower or experiencer no knowledge in any intelligible sense could be

¹ *The Psychological Approach to Reality*, University of London Press, 1929.

² Cf. chap. I; where it was shown that the continuity of consciousness depends upon the unity of the self, or conscious subject.

possible; or at least, as we shall see in a subsequent paragraph, it could not be known to be knowledge.

We have thus in the percept of our own bodies, and in the immediate intuition of our own self as active, a sensorial and a non-sensorial—or as I should maintain a phenomenal and a super-phenomenal—awareness of what naively and without sophistication we call ourselves.

¶ 10. CONCEPTION. But there is a third kind of knowledge, elaborated from empirical experience, which we also possess of ourselves. This is conceptual knowledge. Every one of us forms a notion of what he really is, or thinks he is, because of the ways in which he apprehends that he acts, and is therefore capable of acting. Knowledge of this kind is abstracted for the most part directly from experience, though some items that go to shaping the abstract concept of oneself are reached by the same process of analogical construction as that to which reference was made with regard to the percept of the body. Thus, because he has experienced himself as feeling, knowing and willing, and because he has also observed changes taking place in the group of phenomena he calls his body in connection with these mental operations, the individual conceives of himself as capable of acting and changing in all these various ways. And, because he has the immediate intuition of himself as substance-activity, he relates all specific and transient actions and changes of this sort to that fundamental experience as determinations of it. But this abstract concept which each one of us forms of himself is in point of fact no

more than an exceedingly complex mental object constituted of abstract notions and relations. It is no more the self than any other abstract and objective concept, such as that of a lump of gold, a tree, or an elephant is. Like the perceived body, the conceived self is never the subject, but always an object; *it* does not feel, or think, or will; and, accordingly, though it may more or less adequately represent him, it never is or could be the existing individual or person. It is a mere conceptual, though exceedingly complex, representation; the notion one has of oneself.

We have accordingly the percept, the concept, and the intuition as three ways in which the self or person can be said to be known; but, two of these, the percept, namely, and the concept, are always mental objects and never the subject of experience. And the concept is not even within the realm of empirical reality, although it is largely abstracted from empirical experience. The key to the problem of selfhood and the nature of personality cannot be found in either of these objects for the simple reason that they are objects and not subjects of experience. It is the conscious and existing individual who is the person; and this conscious and existing individual can only be discovered in the kind of knowledge which is immediate intuition. That is to say, the key to the problem is to be found, not in knowledge simply, but in reflex knowledge.

C. II. REFLEX KNOWLEDGE. Now, reflex knowledge is precisely that kind of knowledge which we have seen to occur when the knowing self is lived and apprehended as

identical with the self known; when the feeling self is lived and apprehended as identical with the self knowing itself feeling; when the resolving or choosing self is lived and apprehended as identical with the self knowing itself resolving or choosing; and the like. We have already seen that this experience, which is as empirical as any experience can be, is absolutely non-sensorial or supra-phenomenal. It is the unique experience in which a noumenon may be said to be identical with its non-sensorial phenomenon. And though I place great reliance, in respect of its scientific characterisation, upon the systematic introspections obtained in the researches into will-process of which an account was given in chapter v, it is an experience which is possible to apprehend in quite unsystematic and unexperimental conditions. Indeed, an appeal has been made to this experience by philosophers from the earliest times to "prove" the immateriality of spirituality of the soul.¹ In this respect the philosophers were pointing, not to any theoretical construction or conclusion, but to an immediate empirical fact of experience upon which to construct their theory and from which to draw their conclusions.

The self or person, accordingly, whatever else it may be, is the experiencing subject who feels and knows and wills. It is given in immediate experience as a substance, or entity subsisting in itself; as an activity immanently energising, or originating and terminating its action within itself; as a being altogether incommunicable to any other being.

¹ Plato, Aristotle, Plotinus, Augustine, Aquinas, Galen, Descartes, Locke, Berkeley, etc.

But, then, if this profound self-conscious being is indeed the person, what is the body which we sensibly perceive? Clearly, this is a phenomenon; for it is an object appearing to the knowing person. Moreover, it is an object only, although it seems to stand in most intimate connection with the subject experiencing it. It is this intimacy which differentiates one's own body from all other objects whatsoever. It is my body, not yours; your body, not mine nor any other. Might it not be that the body is the sensorial and objective phenomenon of the profound self or person who is the ultimate subject of all experience? Might we not admit that each one of us has two distinct kinds of self-awareness, the one noumenal and the other phenomenal, while he has only one kind of knowledge of other entities, including other selves, this knowledge being purely phenomenal?

¶ 12. DIFFICULTIES. There are difficulties in the way of the acceptance of such a view. In the first place there is the difficulty that, if the body is the phenomenon of the mind, it must be the appearance of that single and individual substance-activity which we intuitively apprehend as the subject of all our experience. But the physicists regard the human body as constituted not of one, but of a vast aggregate of energies. Clearly, if they are right, the body cannot be the phenomenon of a single energy.

There are the difficulties, again, arising from reflex changes in the body, such for instance as the contraction of the pupil in strong light, which seem to be independent of,

and in no way connected with, the profound self; and on the other hand there are similar difficulties arising from the abstractive, volitional and self-conscious activities of the mind, which seem to be independent of any bodily activity.

It is of course no real argument to say that the phenomenal changes which take place in the body (and in other bodies) are totally unlike the experiences of consciousness. As we conceive them, the stimulation of the retina and consequent nervous changes, for instance, are in no way like the sensations of light and colour with which they seem to be connected. The movement of a limb is in no sense comparable with the thought and volition which precede it and appear to cause it. Least of all is the intuition of the profound self akin to the perception of the body. Yet without the intermediary of the body the will or self can bring about no phenomenal changes elsewhere. The self's body, as well as all others, appear to belong to a similar order; while all these and the "I myself" appear to belong to different orders. One's body, accordingly, though at the same time most closely identified with it, seems to require to be in some way distinguished from oneself.

¶ 13. SUGGESTED SOLUTION. The most plausible solution both of the apparent and the real difficulties would seem to lie in a modification of the old theory of moderate dualism. What we apprehend in phenomenal experience as body is not mere matter, in the old and commonly accepted sense of the term, but a systematic organisation of differentiated cells each living its own life, yet all conspiring together in

the single common life of the organism. Over and above the individual cells, considered abstractly as units, there is a principle of systematic synthesis or organisation, without which the cells would be mere individuals, and there would be no living organism. But the cells of the body in their turn are constituted of molecules, the molecules of atoms, the atoms of energies; and at every stage, in order to account for their integration in a unitary living organism, a principle must be invoked which will not only systematise and integrate them, but will account for the fact also that the organism is alive. In the last analysis the body, according to the mathematical physicists, is an immense aggregate multitude of energies which are qualitatively, quantitatively, locally and temporally indeterminated. On the other hand, what we intuitively know in immediate experience as the feeling, knowing, willing subject is a substantial activity, likewise energetic. But all these energies conspire together towards the constitution of the conscious person, the individual existent entity. The physical "energies" are not a mere collection; they constitute a living system. Preserving their own individuality and their own activity, they none the less enter into a higher organic unity; they constitute a living organism. But how can we conceive them to be systematised and unified in that living organism, so that there is a common life and a commonly expressed activity in behaviour? There must be a principle of systematisation, of organisation, of life, of consciousness. Is it to stretch theory too far to suggest that the principle in question is that very conscious self which we intuitively

live and reflexly know in its operations of feeling, thinking and willing? This principle in living beings used to be called the soul; and, because of its violently contrasted nature with that of a material body, most of the psychophysical difficulties arose. It now takes its place as an energy or substance-activity in relation to other substance-activities or energies, as that which determines them to the particular configuration of relationship in which they stand and energise. The difficulties disappear.

The soul is not the lute, nor the harmony of the lute; though lute and harmony are both involved in personality. It is that which constitutes the lute an instrument of harmony. Neither the body nor the soul is the person. The person or self is the organic unitary whole, the resultant of a multitude of energies, systematised by a constitutive principle which is conscious energy itself.

CHAPTER X

FREEDOM AND DETERMINISM

¶ 1. CONCEPT OF FREEDOM IN PHYSICS. Although we should not lay too much stress upon scientific speculation which goes beyond the available evidence, the fact that the recent development of physical science has led to the concept of freedom being applied to the ultimate energetic constituents of that which in our experience appears to be extended matter is of great interest to psychologists. Already in antiquity, in order to explain their agglomeration in masses and the consequent formation of worlds, Epicurus had used the same concept in respect of his material atoms, endowing them with a certain intrinsic power of deviation from the straight lines in which they fall. But the modern view is the more interesting from the very circumstance that it goes beyond mass to discover in the universe no other reality than energy. To be sure, this doctrine in the strict sense of the word is a metaphysical rather than a purely physical one; for it does not fulfil the scientific criterion of being verifiable by reference to empirical experience whether by direct appeal or by an exclusive prediction of results. None the less it does fulfil the philosophical criterion of consistency; and the energies in question are mathematically deduced from observed properties of empirically experienced matter.

¶ 2. DERIVATION OF CONCEPT OF FREEDOM. Even if they

may be applied in the explanation of material phenomena, however, the concepts of energy and freedom cannot be derived from these phenomena in any way. All that we can observe are concomitances and sequences. One event constantly occurs together with another; one invariably follows upon the other. In their regard, as we have already seen, we have no immediate intuition of substance or cause; in like manner we have no intuition of energy or freedom. Hume was absolutely right when he taught that the ideas of substance and cause cannot be derived from the objective items of empirical experience; and, if such experience is the sole ground of all our ideas, then those in question could only be explained as due to the custom and habit of contiguous or successive association. Precisely the same argument holds good in respect of our ideas of energy and of freedom also. If mathematical physics, accordingly, applies this notion of freedom to its elemental energies, that notion has been discovered elsewhere than in the objective world which is the initial datum physics sets out to explain.

But there is more in experience than the impressions and ideas of Hume. There is also the experience of self which was dealt with at length in chapters v and ix.

Extended objects admittedly form part of our empirical experience; objective energy does not. To experience an energy we must turn from the objective world as we apprehend it to ourselves. For it is uniquely in the immediate apprehension of our own activity—the situation of self knowing self in the identity of knower and known—that we live and intuitively know an “energy”. But we must accept

this energy as it is found in experience absolutely; and it would be wrong to interpret it in any way, such as, for instance, on analogy with our concept of physical force; since this and all other such concepts have been formed on analogy with it. As experienced, our own mental energy is actuality rather than force; the actuality of being alive, feeling, knowing and willing; and in no sense is it comparable with the hypothetical forces of physical science, whether involving mass, space and time ($\frac{1}{2}MV^2$) or not. These have proved and still prove useful concepts in physics; but they are nowhere observed nor observable, neither in the empirical world nor in self-apprehension.

As we saw in the last chapter it is precisely from the experience of self-activity in its many phases, which we may now perhaps characterise as actuality-energy, that we abstract the various notes, the many items and relations, which are built up into the concept we have of ourselves. Here in the concept we have the notions of all the ways in which we may act or energise because we have actually experienced ourselves at some time or other so acting and energising. In other words, we have a concept of the self as potential. Clearly, this is not the way in which physical energy has been conceived in classical theory, in which it was regarded as a persisting something, sometimes latent, sometimes manifest in movements of mass, or work done; something capable of transfer from one material entity to another; something the sum total of which remains constant in the universe. This concept is the result of complicating our innermost apprehension of actuality-energy with

relations and correlates, and then projecting it into the objective world.

But mental energy is the actuality-self, which is potentially capable of manifesting itself in many ways. And it would appear that the new concept of energy which is being framed by the mathematical physicists of to-day is in fact a far more close analogical extension of that intimate experience to the world of external reality which forms the starting point and subject matter of their science than was the older one. The concept is that of energy without mass and, accordingly, of non-transferable energy. Moreover, it is conceived to be free, or at least within limits self-determining.

¶ 3. CONSCIOUS PERSONS AND FREEDOM. If matter thus turns out in the ultimate analysis of mathematics to consist of at least relatively free energies, what are we to say of the conscious persons, from whose immediate self-experience the concepts of energy and of freedom are originally derived? In our study of will-processes¹ we found good reason for drawing a distinction between conation (striving, performing, carrying out) and volition (resolving, deciding, choosing). There is evidently a law that conations follow upon deliberate will-acts in the same way as they follow upon blind instinctive impulses. Thus far we are in the realm of determinism; for the impulse or will-act determines the ensuing conation. Moreover, the whole process of instinctive impulse, conation, action, follows on per-

¹ Cf. chap. v.

ception of an appropriate stimulus and seems to be more or less rigidly determined by the adaptation of the psychophysical organisation of the creature to its environment. Allowing for variations in either of these, all instinctive behaviour can easily be conceived to be determined from beginning to end. But will-acts, though they may determine conations, appear to be so capricious and so entirely independent of antecedent determination that they themselves seem to escape all law. Obviously, volition is not absolute; it has its limits. Nevertheless, within those limits do we not make our choices according to our own pleasure and without constraint, except the inner constraint which we impose upon ourselves? Is not the principle of volition an entirely immanent one? Have we not the power largely to determine for ourselves how we shall act, to accept or reject the solicitations of instinctive impulses, to pursue or abandon our desires, and in short to originate our own actions? This, at least, is the persuasion of the unsophisticated person; and, despite the difficulties raised against it by metaphysical postulates such as that of the Uniformity of Nature, it is the pragmatic principle upon which every one of us acts, both as a private individual and as a member of the social community.

¶ 4. MORAL AND PSYCHOLOGICAL LIBERTY. This universal and unsophisticated persuasion raises the problem, not of physical, but of moral or psychological liberty. Leaving out of consideration the facts that we may be prevented by external causes from carrying out our resolutions, or that

our executive powers may be insufficient for the course of action proposed, or that impulse or habit may be acted upon before deliberation begins, can we be said in any sense to be free? This does not mean: Can we act capriciously, or in the absence of motives? The question in such a form would be utterly meaningless. When we resolve to do anything, or choose between alternatives, we neither resolve nor choose *in vacuo*. Neither choice nor resolution is an isolated abstract. We resolve upon action towards an end; we choose a goal, or a means towards a goal. Ends, goals, and means towards goals are motives for our resolutions and our choices; and in their absence volition would be impossible. What the question means is this:—Has a person the capacity of self-determination with regard to ideally presented goals and the various possible means towards their attainment? Stated in this way it is an intelligible question.

Psychologists, and especially experimental psychologists, as a rule carefully avoid this problem and make no pretence of attempting to solve it. Fearful, perhaps, of compromising themselves as professors of an empirical science, they leave it to the philosophers as a problem of ontology or ethics, and shut their eyes to the patent fact that it is essentially a psychological problem. All the data for its solution must evidently be derived from introspection. The psychologist has no right to refuse to deal with a problem because it happens to be a difficult one, nor to shoulder his responsibility upon some one else because he fears to compromise himself by taking sides in a controversial matter. At

least it is absolutely incontrovertible that the notions of freedom and determinism occur in our minds; and it is the manifest duty of the psychologist to render an account of them, just as much as it is his task to give an account of our notions of thinghood, space, time, causality and the like. He has little hesitation in attempting to account for the origin of these notions; he should attempt to account for the origin of the former as well.

It may be that an examination of such data as we can discover towards the solution of the problem of freedom will lead us to the position of denying that there is any law, in the scientific sense, to be formulated in respect of the will. There may be no constant sequence between a given kind of motive and a consequent will-act; as there is between, say, the application of an electric spark to a mixture of chlorine and hydrogen and the formation of hydrochloric acid, or the rotation of several colours on a colour-wheel and the consequent perception of them as fused into one. Indeed, the variety of the motives upon which we act, accepting one at one moment and rejecting it in favour of another and totally different one at the next, is precisely that which gives colour to the seemingly capricious character of volitional action. To seek to link any given motive, or class of motives, causally to a will-act, however, is to attempt to work with abstractions. For it not only separates a part of the environment, as motive, from the whole; whereas in fact the motive has its full meaning and value only in relation to the whole. It also separates the will-act from its setting in the total mental constitution of the

person. It is in reality the person who acts, not an abstract will, whether freely or determinately. It is a meaningful goal, judged to be worthwhile, at which he aims, and not merely an abstract motive. If, accordingly, we find freedom, and even a law of freedom, indicated in our intimate self-experience, it can only be a natural freedom and a natural law in the sense of being a fundamental law of our own nature, and not a law of Nature at large.

¶ 5. INTROSPECTIVE EVIDENCE. When we review the introspective evidence available and follow it up as far as we can go, we shall find that there is a psychological explanation of the origin of the notions both of freedom and of determinism. We shall find also that we can formulate a principle, albeit a philosophical rather than a scientific one, in respect of them. The first step, accordingly, is to show how we come to form these abstract concepts.

The crude basic experiences from which we set out to make our psychological investigation of the problem of freedom and determinism are those actions and trains of thought with regard to which we feel ourselves to be free, on the one hand, and, on the other, those very similar actions and trains of thought with regard to which we feel that we are constrained. I will, for instance, to take my pen in hand and write a letter; bodily and mental results follow. My fingers adjust themselves to the pen; my thoughts flow in some semblance of logical sequence; I write the letter. But in all this I feel myself to be free. I might have willed not to write that particular letter, or not to write at all.

I might have used a type-writer instead of a pen. No doubt there are motives for writing, for using a pen or a type-writer, and the like. But my feeling is that no motive moves me until I have adopted it or accepted it. Without my personal cooperation no value is an effectual motive.

On the other hand, a sharp rap on my crossed leg below the knee-joint is followed by an upward jerk of the leg. I feel that I cannot help it and that the movement is necessitated. Or, again, I slacken control in my thinking and sink into a brown study or day-dream. Images and thoughts come and go; but I feel no responsibility for their order or sequence, and spontaneously believe them, like any other phenomenal sequences in the physical world, to follow some necessitating law. So is it with the dreams which occur during sleep, the actions of the somnambulist, the unreflecting and indeliberate behaviour which follows upon a sudden impulse. These are samples of the data of experience from which our abstract notions of freedom and determinism are derived.

¶ 6. GENESIS OF CONCEPTS OF FREEDOM AND DETERMINISM. We are not yet concerned with the validity of these notions. It is one thing to say that we believe ourselves to be free in some respects and determined in others, or even that we feel ourselves acting in these different ways. It is quite another thing to say that we actually are free or determined, as the case may be. We shall examine that problem later. In the mean time we have only to

account for the genesis of the abstract notions, which we certainly possess, of freedom and determinism.

In this book constant use has been made of the principle that all our concepts are derived from actual experience in one of two ways. Firstly, we either directly extract them from experience, as when we think separately the quality "red", or the shape "square", or the relation between them which "constitutes" them together a "red square". "Red", "square", and relation of "constitution" do not occur in this discrete manner in empirical experience; but we are able both to abstract them, and subsequently to recombine them in various ways in our thought to form complex concepts such as that of "red triangle", "blue circle", and the like, to any degree of complexity.

Or, secondly, we derive our concepts on analogy with experience by the application of already abstracted relations to given experiential items. In this way, as has already been shown,¹ we reach such concepts as those of inert matter, force, or God. We can even go further than this in the creation of concepts; for by applying relations to items already reached in this second way we can generate yet further correlates to them in our thought.

It is by the first of these ways of forming concepts that we reach the notion of freedom and by the second, at least in the main, that we create that of determinism.

The fact that we spontaneously believe that we are not always constrained in our activity, but that our actions, whether bodily or mental, are only sometimes determined

¹ Cf. chap. II.

for us, clearly points to some differentiation in the phenomenal consciousness between the two types of experience. Consider again the choice made between the two mathematical operations or the two liquids, described in chapter v. The subjects of the experiments report their choices in the majority of cases to have been true voluntary acts in the course of which several motives were deliberated and one finally adopted. But what is of the utmost importance here in connection with the notion of freedom lies in the evidence of the introspective reports as to the intimate connection of the intuitively apprehended self with the alternative actually chosen. The difference between the cases in which the feeling of freedom is present and those in which it is absent does not lie in the development of the motives themselves, except in so far as this may be intentionally delayed until the whole process of motivation is complete. All this is known to be cognitive in character, consisting in the evolution and evaluation of the ideal motives themselves. The process may develop in exactly the same way whether we feel free or not. Nor does the difference lie in the finally elaborated motives; for these too are cognitions only and bear no character of freedom. Nor is it to be found in consciousness of act or action, with or without an added consciousness of effort; for these phenomena are conative in character and, though following upon volition, are not themselves volitions and are not experienced as free. The difference lies entirely and uniquely in the awareness of the self-as-resolving, the self-as-choosing; that is, the self actively determining its own activity, accepting one of

the alternatives, designating it, making it its own, identifying it with itself. This is the actual living, and consciousness of "free resolution", "free choice", or self-determination; in which the person himself converts a value into an effectual motive.

In this experience we have a concrete instance, indeed the only concrete instance, of a free cause. But, on analysis, we find that it splits up into the familiar triad of two items and a relation; the items being the self and the ideal motive freely adopted, the relation being that of free adoption, free determination, free identification of a value with the self. From this concrete experience we can, as from any other, abstract the relation; but in this case it is the relation of free causality. And, once it has been abstracted, it can be projected into any purely phenomenal sequence, or applied to any mental item to generate the correlated thought of a free production of effects. In this way, as we saw in chapter II, an explanation can be given of the spontaneous animism of savages and of young children. In the same way teleology can be read into the biological processes of plants and animals, and even into the processes of inanimate Nature. We are able to see purposive activity in the tropistic and instinctive behaviour of organisms other than ourselves; we can even speak of physical and chemical events in a finalist way. In all this we may, of course, be misinterpreting the facts. Our teleological reading of Nature may be entirely wrong. But that has nothing to do with our present consideration that we do apply the notion, that we have somehow arrived at it, and that the sole experience

from which it can be derived is that of the self resolving or choosing. Quite apart from the question of its validity, the psychological origin of the concept of freedom itself is explained. It is directly abstracted from an actual experience.

¶ 7. CONCEPT OF CONSTRAINT. The concept of constraint or necessity, on the other hand, may be reached in one of two ways. We may simply create the notion by applying the relation of opposition to the concept of freedom in a way similar to that in which we create the idea of "non-entity" by applying the same relation to "entity". Or we may in part derive it from the experience of impeded or non-effectual desire, and in part complete it by processes of the correlate-production kind. Impeded activity and non-effectual desire in themselves, however, are not experiences of a volitional character, but conational. We can will perfectly well even if we cannot carry out our willing in action. This fact suggests, even if it does not prove, that in such cases the opposition and obstruction of the conative tendencies set up by the will-acts is due to the operation of causes similar in near or remote analogy to that only cause which we immediately live and know. The active opposition of another will is conceivable; the relatively inert resistance of lower forms of energy is conceivable also. But the only experiential datum we possess is that in these cases willing produces no result except a frustrated conation.

The complex notion of law in the scientific meaning of the term, connoting as it does determinism, is mentally

elaborated from this experience by way of the processes which are already familiar to readers of this book. A scientific law, stated in conceptual form, is something an *exact* instance of which is never in point of fact experienced. In this respect it is like the concept of any geometrical figure, in which the imperfections of every possible concrete example of it are removed by thought. We can never draw, feel or see an absolutely straight line, a perfect triangle or circle, a cube or pyramid. Yet we do think these things; and geometry is a reputable science. Likewise we can never observe the working of a law of Nature. We can only remove the imperfections of our observations by conceptual processes, and by the use of statistical methods which involve probable errors. Even then we can look upon these laws only as abstractions in which the consideration of an immense number of conditions is omitted. In these circumstances and with these *caveats*, Nature may be conceptually regarded as a system regulated by inexorable law; but this concept itself is posterior to that of freedom. The latter is abstracted without elaboration immediately from experience. The statement is worth repetition that from the point of view of the genetic psychology both of primitive peoples and of children, animism precedes natural science, and the vague notion of freedom antedates that of determinism.

¶ 8. VALIDITY OF THESE CONCEPTS. So far we have been concerned with tracing the psychological origin of the concepts of freedom and determinism respectively, and showing how it is that we come to possess such ideas. We shall

now most briefly examine these same two ideas from the point of view of their validity. Is the feeling or experience of free self-determination in the dynamic states of resolution and choice in fact a direct intuition of a free person, or is it an illusion? Is the experience of obstruction and frustration the sign of a person determined to certain lines of activity? Subsequently to an answer being given to these two questions there arises another, in respect of the scientific belief of the universal determinism of Nature by cosmic law:—Is the course of Nature determined? Although this is a subsidiary question, it will be convenient to dispose of it first. The problem is that of the external reality which corresponds to, or gives rise to, our notions of it.

We have no direct intuition whatever either of freedom or of determinism in the cosmic order. The events which have always occurred together in experience, or which have invariably occurred in indissoluble sequence, may lead us to the expectation of their simultaneous or successive occurrence again. But they can do no more; for no causal link is apprehended between them. Nay more; the events themselves are for us, and in our knowledge, nothing else than phenomena, mental objects existing only in virtue of being such. The reality of the thing-in-itself, in which we certainly believe, is an inference, an analogical extension, a correlate reached from the ground of that uniquely real, intimate and profound self.¹ The notion of a necessary determinism applied to the interconnection of these realities,

¹ Cf. Aveling; *The Psychological Approach to Reality*, University of London Press, 1929.

or even to the concomitances and sequences of their phenomena, has an even less justification of validity than they themselves have. The Uniformity of Nature is a postulate, not a self evident fact; and its validity depends upon the worth of the mental processes of inference by which it is reached. Clearly, it is more open to question than the observations upon which it is based; and these themselves, in turn, being partly objective phenomena and partly that of the experience of frustrated conation, are again more open to question than the indubitably direct and insightful awareness of the self freely energising. If any experience is real, surely this is real. Indeed, it is the most real of all; for all else is a construction based upon, or derived from, it. As we have seen, it is the original and indisputable datum upon which all our concepts of substance, energy, causality, freedom, determinism, and even the Uniformity of Nature in the last analysis, are seen to rest. Accordingly, though Nature, since its laws so far as we know them appear to be verified in concrete experience, may rightly be conceived as a system governed by its own inherent law, no conclusion drawn from that conception can invalidate the intimate conviction of freedom which arises immanently in our living and insightfully apprehending ourselves. If a choice must be made between universal determinism and universal freedom there can be no doubt of its issue. It is more reasonable to hold that freedom reigns in Nature as a whole than that we ourselves are caught in the rigid net of cosmic determinism.

No such impasse, however, in reality arises; and again

the solution of the apparent difficulty lies within ourselves.

Our argument throughout has largely hinged upon the distinction between volition and conation, which is a fact of introspective experience and is borne out by objective indications also. It is not in the will-acts of resolution and choice, but in the instinctive impulses and impeded conations, that determinism can be said to be experienced. The experience of freedom lies only in the self-determination which occurs in willing. And we have seen that this experience is more immediate and more real than any experience of determinism in ourselves, or any reading of it into objective phenomena or realities transcendental to mind. The appeal for personal freedom is made to personal experience.

II. 9. OBJECTION FROM PSYCHOLOGY STATED AND MET.
Apart from arguments against this fundamental experience drawn from the postulates of other sciences, there is only one psychological consideration which has sometimes been put forward to invalidate it. It is said, and truly, that we never will in the absence of a motive. Though we may act impulsively without a known reason, we never resolve or choose without reason. The fact that the will can act only upon some motive, however, is interpreted to mean that motives of themselves invariably determine the will; and it is further asserted that in any given case we are moved to act by the strongest motive of the moment. This assertion assimilates an act of volition to the necessary effect of the

prevalence of one, or the composition of several physical forces. In this presentation of the objection against freedom, the motive which has the preponderance over the others is generally held to be that one which is most consonant with our original nature as modified by experience and habit. Will is looked upon as an outgrowth of instinct.

The objection, which is put forward as a psychological one, can be met psychologically. But, in order to meet it, we must know exactly what is meant by the term "strongest". Sometimes it is literally taken to mean that motive which in the end prevails; and indeed, since a motive in itself is imponderable, this is the only way in which the strength of one motive could be compared with that of another. But, in this form, the objection is no more than a tautology, and perfectly useless for purposes of explanation. Obviously, the motive which is acted upon prevails; but this tells us little as to why it should have prevailed. On the other hand, it is an explanation of the prepotence of a motive to say, as we have done, that it prevails precisely because prepotence has been contributed to it by the action of the person in accepting it. Sometimes, however, by "strongest" is meant "most pleasurable" motive. This, to be sure, is no tautology; but on the introspective evidence the statement that we are moved necessarily by the most pleasurable motive is absolutely false. We frequently resolve, choose and act against the most hedonic motive, in spite of our desire for pleasure and aversion from pain. This is an ultimate introspective fact, to be accepted or

rejected on the evidence each one of us has in his personal experience. The numerous arguments in favour of freedom drawn from ethical concepts such as those of moral responsibility, justice, duty and the like, and those in favour of determinism based on postulates of physiology, physics, statistics¹ and metaphysics, need not be considered here.

The former should be treated as having arisen within experience in the same way as the notion of freedom itself; while the latter are to be explained as concepts reached by way of elaborate, even if unconscious, mental construction. For this very reason, accordingly, just as within experience freedom is more immediate and real than determinism, the ethical concepts would seem to be more nearly and more validly rooted in experience than the scientific and metaphysical concepts in question.

Apart from this, the objections against personal freedom fall to the ground, and the experimental work on the will provides its solution, when the problem is properly stated. It is this. Considered from the point of view of volition, are human beings free in the sense that they are capable of self-determination with regard to any value whatever which is presented in concrete experience? They may not *de*

¹ It will be remembered that Webb's work, in which the existence of a general will factor was proved, as well as that of Lankes, who showed that the self could influence its bodily temperamental factors, were statistical in character; yet they indicate freedom rather than determinism. Indeed the very fact that statistical procedures are necessary for the investigation of these matters shows that individual actions are not rigidly determined by simple laws in virtue of which a given motive always moves the will in precisely the same way.

facto act freely; they may act on impulse, according to instinct and habit, without reflection. None the less, are they inherently free? Quite apart from any consciousness we may have of freedom, the answer must be "Yes"; and for this reason. Every value presented in concrete experience is apprehended as in some respect deficient in comparison with absolute value; so deficient that it cannot, as an absolute value might, necessitate acceptance as a motive.

But, it may be objected, no such absolute value is provided by experience, in reference to which these concrete values may be judged to be deficient, and accepted or rejected at will. Obviously that is so. Yet, as we have seen,¹ clearly or obscurely in one guise or another we do possess the concept of absolute value. It is in this intellectual presentation of the highest good that the possibility of free resolution and free choice consists. Were we to apprehend the absolute within experience we should not be free, but determined; for it would be so eminently desirable that will would act impulsively as instinct does. Holding it only ideally in our minds as a supreme object of reference, the absolute liberates us from the necessity of choosing any concrete good. If we are free, as we experience ourselves to be, it is because we have the power not only of apprehending our experience but of transcending it.

¹ Chap. VII.

CHAPTER XI

NATURE OF PERSONALITY

¶ 1. MEANINGS OF PERSONALITY. In the Introduction to this book we saw that there are several meanings of the term personality as commonly used in popular language, in scientific psychology and in philosophy; and it was there noted that in all these meanings the notion of activity in one form or another is included. One particular determination of this activity, as we have seen, is the human will. In this our final chapter we may now gather up and attempt to knot together some of the threads which have been left hanging loose in the expositions and arguments developed in the foregoing pages, with a view to determining what personality is and in what way it is connected with the will.

¶ 2. COMMON USAGE. Let us first consider the looser usage of the term in popular speech. The ordinary man uses the term personality, not to express that in respect of which all human beings essentially resemble one another, but to emphasise their more striking points of difference. He does not, however, take into account all of the exceedingly numerous abstract factors which enter into the concept of what he calls personality, but roughly selects one or two outstanding features instanced in the habitual behaviour of those whom he considers to be "personalities". He uses the term in what I have called its histrionic sense; although the good dramatist or actor, in emphasising certain traits in

the characters he portrays or represents, is careful not entirely to overlook the others, but modifies them also in relation to the traits which are stressed. He is careful to make his characters consistent throughout.

The lay usage of the term makes personality equivalent to character, as outlined in chapter VIII, with most of its constitutive elements omitted or overlooked. Thus by a strong or dominant personality the layman means in fact a person in whose character the qualities of self-assertion, prestige and leadership are strongly developed. But these clearly are not the only factors the integration of which constitutes this kind of an individual. Other character qualities and factors of temperament enter in also. A physically inefficient or unbalanced organism can hardly be compatible with dominance. There must further be in such a character a certain discipline of native tendencies, and a hierarchical subordination of these as well as of acquired habits to master sentiments or to a single master sentiment. This is a matter of the will. And, finally, there must be an intelligence of such temper and quality as is consonant with an emotional and conative make-up of this kind. So it is also with regard to the other types of personality which are popularly recognised. It is only the outstanding traits of character upon which they are based.

C. 3. TECHNICAL USAGE. In the technical use of the term in modern psychology it has a similar meaning; personality is practically the equivalent of character. It has been defined¹

¹ Cf. Bridges; *Outline of Abnormal Psychology*, Columbus, 1925.

as "the organisation of all so-called mental contents, traits, capacities, and reaction tendencies"; a definition indicating that the psychologist attempts to supply the omissions of the layman and take all the relevant factors into account. To examine such an organisation in detail is a prodigious task with which psychologists have now been occupied for many years. Unfortunately, much of the otherwise excellent work which has been done in this direction has been handicapped in two ways. In the first place, the doctrine of associationism has had a preponderating and unfortunate influence upon it, which is still apparent even in contemporary psychology. Since, according to this doctrine, consciousness is no more than the sum total of impressions and ideas, or mental contents and states, personality has been held to consist in nothing else than the aggregate of these. Despite the more recent and almost universally avowed rejection of associationism in favour of dynamic or hormic views of the mind, however, its terminology and even its disavowed dogma lingers on; and attempts are still made to reconstruct personality from the abstract phenomena of mental life. Sometimes it is presented as a synthesis of sensations, memories, emotions, conations and the like, flowing together in a "stream of consciousness". Sometimes it takes the form of an integration of native and acquired dispositions, or tendencies, instincts and sentiments, in a unitary hierarchical system. But nearly always it is an attempt to construct a concrete personality from abstract phenomena, or from the abstract tendencies postulated to account for them. The profound

self, the nucleus and central core of personality, the fundamental reality of which they are the phenomena and the tendencies, is not seldom left out of the picture altogether.

In the second place, the problem has generally been attacked from the point of view of the abnormal rather than from that of the normal. Pathological cases loom large in the literature; and though in point of fact the observed cases are exceedingly few in number, they have been examined again and again by the authors with a view of determining the nature of personality. Although abnormal phenomena, being exaggerations of them, may throw light on the normal, it is the opinion of the present writer that one should work out a consistent view of personality on normal lines in such a way that the less usual phenomena will fit in with it. It does not seem to be a scientific procedure first to define concepts and frame theories in reference to pathological and abnormal cases, and then require the normal phenomena to square with them.

The one fact which will at the same time enable us to avoid the pitfall of associationism and allow us to interpret the abnormal phenomena in the light of the normal is the immediate and insightful living and knowing of the self upon which so much stress has been laid in this volume. With this clearly held in mind, we may advance a theory of personality into which the facts observed in connection with the abnormal and pathological cases will fit.

¶ 4. THEORY OF PERSONALITY. Since a nature is nothing else than a subsistent being considered as the ground or

source of its own activities, any acceptable theory of personality, or human nature, evidently must take account of all the activities of which a person is capable. We have no other way of becoming acquainted with the natures of things, nor of differentiating one thing from another, than by observing how they act upon us and, in our own case, how we react to them. Partly by objective observation, accordingly, and partly by introspection a very large number of human activities is revealed to us, all of which are evidently the activities of one and the same subject. Thus the vegetative functions, digestion, circulation, respiration, secretion and the like are not the activities of a vegetable in some way connected with us, but are activities of the living person himself and are experienced as such. So also are the sensory functions, including with actual external sense perception the activities of imagination, memory and sensory judgment; and adding to them, as belonging to the same sensory level, appetites, impulses, emotions and conations. These are all without exception experienced as personal. Over and above this there are the still higher personal activities of self-consciousness, understanding, judgment, reason and will.

Although the foregoing, together with many others, are activities revealing the nature of personality, it is not necessary that they should, and indeed they do not, all function continuously at the same time. What is necessary, however, is to postulate a principle or principles to account for the fact that they function at all. In different chapters of this book we have postulated a number of proximate principles

such as temperament, instinct and sentiment in order to explain the observed facts of our mental life; and in chapter ix more fundamental principles still were suggested to account for the constitution of persons who appear to themselves both as extended bodies and as conscious minds. These were, on the one hand, a multitude of physical energies systematised into one organic unity, and on the other hand, the unique principle of conscious energy which systematises them. This, clearly, is a metaphysical view; but it is justified by our immediate awareness of ourselves as thinking subjects and willing agents; and it provides us with a substantial reality as the source or ground to which we can refer all the empirically observed activities indicated above.

¶ 5. DEFINITION. Personality, accordingly, may now be defined, not merely as the organisation of all so-called mental contents, traits, capacities, and reaction tendencies, but as that final perfection which virtually includes in itself all the principles of human activity and constitutes a unitary, self-conscious, and (to some extent at least) self-determining individual.

This concept does not require that self-consciousness be continuous in time, nor that memory be all inclusive or infallible, nor that there should not be even immense alterations in behaviour due to the coming into play of one conative system after another. It requires only, amid all the changes of his conscious life, that the self-conscious individual should be aware that he remains self-identical.

Notwithstanding all the gaps and failures and falsifications of his memory; notwithstanding all the shiftings of conative interests, with the consequent stimulation of different native or acquired tendencies to action; notwithstanding even all the radical alterations which his concept of himself may undergo; awareness of substantial self-identity manifests real self-identity. And this awareness, it is submitted, is a character of the experience of every person, normal and abnormal alike. It is the ambiguity of the term, sometimes signifying that which constitutes the subject of experience, and sometimes meaning the organisation of mental contents and states (as if these could be separate entities to be organised) which makes so great confusion with regard to personality possible. It is the failure to distinguish between the immediate experience of living and knowing oneself and the different concepts we may have of ourselves at different periods of our lives which explains the apparent anomalies so strikingly brought to light in an examination of the abnormal and pathological cases.

¶ 6. ABNORMAL AND PATHOLOGICAL PHENOMENA. These we may now most briefly consider in the light of our theory. But, since it is impossible to set forth the case-histories in detail within the compass of this chapter, it will be necessary to treat the facts globally and refer the reader to the copious literature which deals with the subject.¹ The

¹ Excellent summaries of the principal case-histories will be found in *Medical Psychology and Psychological Research*, by Dr T. W. Mitchell, and in *An Outline of Abnormal Psychology*, by Professor William McDougall.

pathological cases, including those brought about in hypnosis which are assimilable to them, may be classified in two groups; those of the so-called dual or multiple type and those of so-called co-conscious personality. The first group need give little trouble. It is well illustrated in fiction by R. L. Stevenson's novel *Dr Jekyll and Mr Hyde*, in which the principal character alternately presents such gross and consistent differences in behaviour that he might easily pass for two absolutely different individuals.

¶ 7. DUAL "PERSONALITY": RECIPROCAL AMNESIA. In the few classical cases of dual or multiple personality with reciprocal amnesia, or mutually exclusive memories, usually cited in the psychological literature two striking phenomena are brought to light. The patient suffering from this condition experiences two or more apparently quite distinct series of conscious states having little or nothing in common with each other. These states alternately dominate consciousness; and all memory of experiences undergone or actions performed during the one is said to be absent in the others. Further than this, sometimes though not always marked differences in the character, tastes and habits of the individual are manifested during the different states. He may, for instance, be cheerful and optimistic in one and gloomy, moody and pessimistic in another. When this occurs, it would point to a definite substitution of one system of interests by another, with consequent changes in the impulses which prompt to action.

In cases of this type there is little to be observed other

than an exaggeration of what currently occurs in normal mental life. There are few people, if any, who are not at some time conscious of conflict between opposing systems of impulses, and even of yielding alternately to them. The items of a normal memory tend, to some extent at least, to be organised in groups around different particular interests which may dominate alternately, so that the activation of one brings about a temporary lapse from consciousness of the memories connected with the others. And in our own case we know that these interests and memories are bound up with moods. Most characters, again, give evidence of gradual change; and in some cases, such as those of conversion, the change is sudden and radical, at least for the time. One does not cease to be a person, or lose one's personality, because of these phenomena; nor is there any reason to suppose that a patient exhibiting them even in a marked degree does so. It is because the empirical consciousness is substituted for the self, to whom the consciousness belongs, that these extreme cases are still spoken of as dual or multiple "personalities". And that this is so is clear from the accounts of the very cases cited in the literature, if one makes allowance for the fact that they were nearly always originally investigated by associationists. Even so, the real person betrays his presence. Consider the account given by one of the most striking of the examples. Towards the end of his treatment, the patient¹ reported that the two alternating "individualities" arose and con-

¹ Rev Thomas Hanna; studied and treated by Sidis and Goodheart.

fronted one another in his mind, each making the claim to be his personal self. He went on to say "I tried alternately to throw away each. . . . I decided to take both lives as mine. . . . I do not know how to unify them. . . ." Surely this "I" is the profound self choosing to accept both conative systems with their severally attached constellations of memory as its own. The systems are not personalities, but the alternating possessions of a person; and they cease to alternate and become synthesised when the morbid condition disappears.

¶ 8. UNILATERAL AMNESIA. A second group of cases of alternating personality, showing unilateral amnesia only, exhibits also similar phenomena of memory disturbance and alterations of character. In these cases the character changes are more in evidence,¹ while the memory is restricted in only one or several of the states. The patient in one state is able to recall all that previously happened while in that state and in the others also, but not *vice versa*. Several pathological cases of this kind have been observed; and a number of similar cases have been artificially produced in hypnosis. They seem to be a transitional form between multiple and co-conscious "personalities".

¹ Dr T. W. Mitchell suggests that these character changes are, in the hypnotic cases, induced by the kind of behaviour with which the hypnotist treats the patient in his different states; and he remarks as a result of his own experience that, if the hypnotist maintains the same attitude towards the patient in each stage of hypnosis, no distinguishing peculiarities are evident in the different stages.

Here again it may be said that we only have an exaggerated emphasis of perfectly normal phenomena. Of day-dreaming there is often enough remembered for us to realise how similar our day-dreams are, and how they revolve around some dominating interest which may be incapable of fulfilment in practical every-day life; but during the day-dream itself every-day life eludes us. So of the dreams arising in sleep when waking life is shut out, sometimes enough is remembered to identify them as moving in repetitions or in cycles dramatising semi-conscious desires or fears. Forgotten interests which we have long outgrown, together with the memories grouped around them, may be recovered and activated afresh, so that our present interests and the activities issuing from them may be held for a time in abeyance. It only needs that the pressure of such interests, wishes or fears should become strong enough to oust the others from attention, and we have a case not dissimilar from those described in the literature. In our normal state we remember our past experience; in the state described we should be living it over again to the exclusion of the present. But when we take up the thread of the present again, it sinks back to its place as a mere, though recoverable, memory.

We should not, moreover, overlook the fact that in all the cases, whether pathological or induced by hypnosis, there is as a matter of fact much consciousness shared in common during the several states. There are sensations, feelings and even simple impulses common to them, and usually the use of language and the recognition of persons,

places and things. The phenomena suggest a shrinking of the conscious material available for personal manipulation, such as perceptions, memories, interests and impulses, rather than any real alteration in the individual. The only case in which any substantial difficulty arises in respect of the theory of personality advanced is that in which the claim is made by the patient himself during one of the alternating states that it expresses an entirely different person from the others. This difficulty will be examined later in connection with the phenomena of co-consciousness, in which it also arises.

¶ 9. EXPLANATION OF PHENOMENA. In the meantime it is in place to give some explanation of the facts so far considered. If our view of personality is right, and a person is an organic unitary whole resulting from a number of energies systematised by a constitutive principle of conscious energy, what can we make of alternating "personalities" whether reciprocally amnesic or only unilaterally so?

In order to appreciate the answer to this question it will be helpful first of all to see how it might be answered on the lines of the other psychophysical theories outlined in chapter IX.

¶ 10. EPIPHENOMENALISM. Let us first consider epiphenomenalism, or materialistic monism. Since for him consciousness is only a collection of bye-products of the functioning of the body, and in particular of the central nervous system, the epiphenomenalist explains its apparent

unity and continuity as due to the functional unity and continuity of the underlying physical processes themselves. If these should become separated or discontinuous, consciousness also would reflect the separation and discontinuity. The phenomena of multiple personality, accordingly, may be explained on the ground of a functional dissociation of spatially differing parts of the brain.¹ Simple alternating personalities with reciprocal amnesia, although as we have seen there is a considerable amount of conscious material shared by both, would be caused by two or more aggregates of neurones functioning independently, but each also functioning together with a large common aggregate. Cases with unilateral amnesia would be explained as due to the alternate functioning firstly of one smaller aggregate alone, and secondly of the whole including this aggregate. It is a very simple picture, and easy to imagine. If we were merely examining patients suffering from such "splittings of consciousness" objectively, we might conceivably accept such an account of the matter. But the patient himself, who at one moment is in state A and at the next in state B, could never know, or even suspect, that they were different states. One *state* certainly could not *know* the other, any more than a state could know itself. It is only because there is a knowing self that a state of the self can be known, or one state be known as differing from another. Further than this, even if there should be a total

¹ This view seems to be definitely overthrown by the recent neurological work of Lashley. Cf. *Brain Mechanisms and Intelligence*, Chicago, 1929.

amnesia for all the other states during the occurrence of any one of them, on the hypothesis of dissociation of neural areas in the epiphenomenalist sense, this could only mean that the areas actually functioning knew their own states alone, and that the memories and impulses of the non-functioning areas were not available at the same time. But available, it must be asked, to whom or to what? Surely not to themselves or to each other; for that would be mere nonsense. The only sensible answer is that such memories are available or not available to a non-extended unitary self who remembers and identifies the memories, or fails to remember them.

C. II. PSYCHOPHYSICAL PARALLELISM. Of the two forms of psychophysical parallelism, the one in which it is maintained that the bodily and physical phenomena run a parallel course without interaction would provide a very similar answer to the question of the interpretation of alternating personality. An exactly similar comment to the foregoing would accordingly suffice here also;¹ and an analogous one may be given in respect of the other form of parallelism in which it is held that the physical and mental series are aspects of one and the same underlying reality. But here the answer would take the form of contrasting the unity and continuity of the conscious series, established by the essential unity of the self, with the multiplicity and discontinuity of the physical series; and of a denial that such

¹ This theory is in reality a form of phenomenalist dualism.

contradictory characters could be resolved in any such postulated reality. Lastly, since spiritualistic monism has had no plausible answer to suggest no comment need be given in respect of that theory.

¶ 12. INTERACTION. But when we turn to the dualistic theories of interaction between body and mind or soul we find a more convincing reply. In the two-substance view as at present expounded, for instance, the soul or mind receives from, and is dependent upon the brain for, its impressions and memories, its emotions and impulses; just as through the brain the body is dependent upon the soul for the inception of its voluntary actions. If, accordingly, aggregations of neurones should function independently and in alternation, different and even incompatible groups of impressions, memories, impulses and emotions would arise in the mind and prompt to action. This would account for all the alterations of memory and behaviour observed both by others and by the patient himself in his alternating states. It would account both for reciprocal and unilateral amnesia, as well as for the manifested differences in sentiments, impulses and habits. That is, it would explain the abnormal cases precisely as it would explain the normal, and leave the personality intact throughout.

Moderate dualism would follow a somewhat similar line of explanation. Here, however, since the person is neither soul nor body, but the individual resulting from a union of these abstract, though real, principles, all the impressions, memories, impulses and emotions which arise in conscious-

ness and stimulate to action are considered to be dependent upon the body (*i.e.*, the nervous system) in so far as it is, to use an Aristotelian term, "besouled". The besouled or sentient body, however, is material or extended, and composed of parts which may function separately. One part may move without movement of another; one sense may be stimulated while another is not. Separate functioning of this kind does not destroy or alter personality; though it certainly does bring about changes in the empirical consciousness. Aggregates of neurones in the brain likewise may function separately; and in that case the sensory consciousness of the individual, though not the conscious individual himself, would alter according to the extent of alteration in the neural function. But the person would remain, and would know himself to be, identical throughout all these changes in his experience; although his perceptions and sensory memories should change, his impulses vary, and his character become totally altered. Even if he should affirm in one alternating state that he is a different person from what he was in another, that affirmation would only be possible because he is, and realises himself to be, indeed the same person in both. Were this not so, he could make no comparison of the states in question. Moreover, if he should in one state be totally amnesic for the others, he would still be, and know himself to be, identical with himself in each state; for the self-conscious principle is aware of its own existence and identity in every pulse of its activity. It is this identity, as we have seen, which constitutes such unity and continuity as the empirical consciousness may

have. No doubt in the different states the patient would frame concepts of himself which might considerably, and even greatly, differ; and, if he could recall and compare the concepts, he might even judge that he was in fact two or more different persons in the several states. But he would judge wrongly; since the concept is not the person. It is merely an objective notion, and not a self-experience in any sense. The fundamental consciousness of self alone, and neither continuity of memory, nor consistency of mental contents, interests and impulses, nor even the identity of the concept, manifests personality.

¶ 13. MODIFIED MODERATE DUALISM. Although it is a profound one, the only modification of the theory of moderate dualism that need be made in answering the question with regard to multiple personality from the point of view of the theory advanced in this book has reference to the nature of matter. If matter, as we have seen there is reason to suspect, is an aggregate of energies rather than a mere passive potentiality, then these energies themselves may also be, as the principle of conscious energy which systematises them certainly is, in some unclear and vague way conscious. We have no evidence whatever that this is so. But, if permitted to speculate, we might conceive that the whole sensory experience of which the profound self tends to become aware is the sum of the experiences of every energy-component in the whole aggregate. Even if not conscious, there would seem to be no reason for denying that they might have experience. These elementary energy-

components would be thought of as built up into systems of higher and higher complexity—cells, tissues, organs, body as a whole—all being substantially unified at every stage within the living self-conscious person, and providing the more and more complex experiences of which that person may become aware. Every activity of the individual would be understood in the light of the evident and conscious teleology of the principle of intelligent will which constitutes it. Processes of growth, conservation and repair of injured parts on the vegetative level; processes of appetite, instinct and sentiment on the sensorial level; processes of deliberate willing, resolution and choice on the level of intelligence; all these fit into a single teleological scheme. Purposeful activity is manifested at every stage; and the essential unity of the organism is emphasised throughout. As to the phenomena of dual and multiple personality, which are no more than exaggerations of the normal, these would be due either to the alternate functioning of integrated conative systems on the vegetative and sensorial level, or to the coming to awareness in alternation of parts of experience only, while in reality a total experience was being undergone or lived. In point of fact we never are aware of all the experience we are living. Even though cells, tissues, organs and body as a whole adapt themselves to it, there is only a tendency that we should become aware of some of it. But the whole lived experience is none the less the experience of a person; and when any portion of it rises into consciousness it is recognised as being our own personal experience.

¶ 14. CO-CONSCIOUS "PERSONALITY". Although again the literature dealing with it is considerable, the evidence for co-consciousness derived from pathology does not appear to be very cogent. The extremely small number of cases which have been investigated makes the claim in respect of the occurrence of this condition as described exceedingly doubtful; and in the first hand accounts which are given of the symptoms it is clear that these have been interpreted largely if not entirely on associationistic lines. Better evidence comes from the hypnotic phenomena to be considered in a subsequent paragraph.

As the term implies, co-consciousness¹ means the simultaneous existence of more than one stream of thought, together with their appropriate emotions, moods and impulses, occurring in one and the same individual. A second broader and deeper current of mental life, which only occasionally comes to the light of normal personal awareness, runs parallel to the stream of which the patient is normally aware; and in that second stream processes of consciousness occur which seem to be of an intelligent character. Moreover, these several states or streams of consciousness may alternate like those of simple multiple personality; though in this case the distinguishing feature is that in the one state the patient is not amnesic for the occurrences of the other, whereas the second state is marked by amnesia for the first.² In cases of this kind, as a rule,

¹ The term was first used by Dr Morton Prince to express his interpretation of the symptoms exhibited by one of his patients.

² Cf. p. 218. For the sake of simplicity only two states are considered in the text.

very considerable alterations of character¹ are manifested by the patient during the different states. Most contemporary authors who deal with co-consciousness have by now abandoned the conception of conscious states being aware of themselves which marred the earlier accounts of the original observers. They speak rather of one or several rivulets of consciousness becoming split off from the main stream and running in isolation. But, unless one personifies a stream of consciousness as consciousness itself was once personified by the associationists, or holds as James did that one passing thought appropriates its predecessor and inherits its possessions,¹ these rivulets and streams of thought, feeling and impulse must be the conscious manifestations of one person or of several persons in the literal meaning of the words. We shall see that both these views have been advanced to account for the observed facts.

As in the case of multiple personality here again we find the phenomena of co-consciousness to be no more than exaggerated forms of the perfectly normal phenomena of every-day life. We are all at times conscious of trains of thought of an apparently automatic and autonomous character which run on in our minds in seeming independence of the main stream with which we are occupied at the moment. We know the effects of resolving to perform some action later on when a suitable occasion arises; how on the occasion the appropriate thought and impulse come to mind, although in the meantime we had no cognisance

¹ James; *Principles of Psychology*, London, 1890.

of it.¹ More striking still is the case, familiar to us all, in which, having fruitlessly tried to grapple with some problem which eludes us, or to recall a name we have forgotten, we abandon the attempt and set ourselves to some other task, only to find later on the solution of the problem dawns on us, or the name comes to mind of itself. Are we because of this more than one person; or are two or more intelligences simultaneously at work, the one handing over its results to the other without revealing the means by which it achieved them? There is, as we shall see, a simpler answer than an affirmative, which fits in with a great many other observed facts.

¶ 15. HYPNOTIC PHENOMENA. Similar though more convincing evidence for co-consciousness is to be found in states of hypnosis. Though in some respects it may be very considerably restricted,² the hypnotised subject has access to an extent of consciousness far greater than in his normal state. He is able to recall events which he cannot normally recall, both those which were experienced in previous hypnotic states and those which in the waking state are simply forgotten. If he is given the suggestion to do so, he will be able to avail himself during hypnosis of his ordinary waking consciousness as well as of the deeper strata which usually lie beneath the threshold of awareness; and if told that on waking he will remember nothing of his hypnotic experiences, he will then be utterly unable to

¹ These are the determining tendencies discussed in chap. v.

² *E.g.*, to the suggestions of the hypnotist.

recall them. Still more extraordinary, suggestions given in hypnosis will be acted upon later in the waking state. The subject, having passed out of the state of hypnosis, will then perform the suggested action at a given time or on a given signal, without any previous normal awareness that he is to do so, or present consciousness of why he is doing it. Somehow at the signal an impulse to carry out the action arises in his mind, as if he consciously knew that the signal meant the action; somehow he has unconsciously reckoned up the time. If the suggestion is, say, to give the answer to an arithmetical problem, he will give that answer; although he is totally oblivious of the fact that he has worked the sum out. These phenomena point to some form of co-conscious recognition, counting, reckoning and even reasoning, which take place either in the unconsciousness of the individual concerned or else in the co-consciousness of some other intelligence which can transmit thoughts and impulses to his consciousness. Are we to accept the second alternative and hold that these phenomena, like those of the pathological cases, indicate a real duality of persons, or several discrete intelligences actively at work? Or is there any less bizarre and more plausible explanation to be given?¹

¹ Similar questions also suggest themselves, even more urgently, in respect of the phenomena of trance "personalities"; for here the claim is actually made that the manifestations are those of the personalities of departed, but still surviving, human spirits. The chief difference between trance personalities and those of the alternating, co-conscious and hypnotic varieties is that the former claim to exist independently of the medium and only to make a temporary use of

¶ 16. LAYERS OF CONSCIOUSNESS. We need not recapitulate the psycho-physical theories again to see how the phenomena of co-consciousness might be explained, since the explanation to be given will fit in with any one, but best of all with the modified theory developed in this volume. It will be remembered that in this theory lived, and we may add, stored experience is distinguished from consciousness; which latter includes at any moment no more than a fragment of the former. We tend to become aware of our experiences; but owing to the limitations of our mental energy we can only become aware of a limited amount at a time. More than this, there is evidence that normally we can only penetrate to a certain depth of experience. There are deeper levels which can

his or her body for the purposes of their communications; whereas the latter kinds are all manifestations of consciousness intimately bound up with the body of the patient or subject. The assertion is made, moreover, that these trance personalities give evidence of the possession of a knowledge which the medium *in propria persona* could never have acquired by any normal means. Many investigators of the highest standing accept as undoubtedly supra-normal some of the communications received, and hold them to be positive proof of the existence of the discarnate human personalities who claim to make them. If the facts are as stated, there is no doubt that they could be explained on this hypothesis; but other hypotheses are possible and scientifically more acceptable. With very little stretching, and possibly with the addition of the supplementary hypothesis of telepathy, for the occurrence of which there is considerable evidence, the phenomena of trance personality will fit into the theory put forward in the text in explanation of those of co-consciousness and the hypnotic consciousness.

only be brought within the sphere of awareness by special methods and technique. This becomes evident in experiments with liminal stimuli which are stated to be unperceived by the subject; and yet, if forced to "guess" whether they have been given him or not, the proportion of correct guesses affords statistical evidence of the reality of the experience. Unperceived taste experience like sweetness may be caused to be perceived by stimulating another area of the tongue with a solution of salt which is so weak that it alone would also be imperceptible. These are laboratory experiments; but there is also a vast amount of clinical data derived from psychoanalysis which substantiates the view that beneath the normal level of awareness there exist deeper and deeper strata of experience in which processes analogous to those of consciousness take place. Such processes are strongly marked by their conative and purposeful character and, though unconscious, play their part in determining the course of consciousness. How deeply we may conceive the lowermost strata to lie is a matter for analogical interpretation; but there is no reason why we should not suppose that the lowest limit is that of intracellular life, or even of the elemental energies themselves. All this would be the region of the mental though unconscious self.

Apart from laboratory experiments and clinical observations, however, the very nature of the field of consciousness suggests the reality of the unconscious. Consciousness gradually fades from a central area of maximal clearness, through areas of less and less determinateness and intensity,

to a margin or fringe in which clearness is minimal. Theoretically the field may be extended to a region in which, by reason of lack of intensity or determinateness, there is no clearness whatever; and this theoretical extension may be indefinitely prolonged. If we represent it by a normal curve, the apex would stand for the focus of the field and the descending and widening curve would picture the decreasing clearness and the increasing area of consciousness. At a certain point in the curve we should reach the threshold, beyond which there would no longer be consciousness, but only unconscious experience. This is an entirely psychological conception, and does not of itself necessitate any particular view as to the constitution of the body.

With respect to the interpretation of the phenomena of co-consciousness the notion of a threshold is capital. We are conscious of all that arises above the threshold and unconscious of all that fails so to arise. But the threshold is not necessarily fixed at one definite point of the curve. Its height may vary in different circumstances with consequent shrinkages and enlargements of consciousness. In point of fact it varies with every one of us when we gradually lose consciousness as we fall asleep. A high threshold means that some of the upper layers of the lower levels of experience are shut out; a low one permits the experiences of these layers to enter awareness. Co-conscious "personalities", whether pathological or artificial, seem in fact to be due to notable alterations in the level of the threshold, while the functional activity of experience at all levels continues

unimpaired. In hypnosis the threshold is considerably lowered, and the subject's consciousness is, at least potentially, expanded. He is hyperaesthetic, can avail himself of memories inaccessible to him in his normal state as well as of normal memories, and is more sensitive to impulses, moods and emotions. When awakened, although his consciousness immediately shrinks, functional activity on the lower level does not cease, as is shown by the fact that he carries out post-hypnotic suggestions. In all this the pathological cases resemble the hypnotic ones; though here the normal threshold is raised in the hysterical condition and restored to a permanently lower level by hypnotic treatment.

It is not incumbent upon the empirical psychologist to provide more than immediate principles of explanation, or concepts by means of which his data may be grouped and related with one another. None the less the concepts of the unconscious and of altering thresholds raise problems with regard to the nature of personality which cannot be overlooked. What is this unconscious in itself; and why does the threshold alter in level?

¶ 17. NATURE OF THE UNCONSCIOUS. It has already been suggested that the experience of which we tend to become aware is the sum of the experiences of all the energy-components of the body, which are built up into systems of higher and higher complexity. This experience, in so far as not cognised, is the unconscious; and it is the analogue of the conscious.

But are we therefore to conceive the energy-components as monads, each being existent in its own right, experiencing and acting for itself, and possibly in some dim way conscious; while all are integrated in a pluralistic, though hierarchical, system under a supreme monad which is the conscious self? Such a hypothesis has historical precedent in philosophy,¹ and has recently been advanced again on the strength of the phenomena of alternating and co-conscious personalities.² But it requires that the personalities, alternating or co-conscious, should actually differ; that more than one person should constitute the living organism. And our examination of the phenomena has shown that this is not the case, and that the term "personality" should never have been used in connection with these phenomena. Disturbances of memory, alterations of character, shrinkings and expansions of consciousness, undoubtedly occur, and even to a marked degree; but that is no evidence upon which a hypothesis contradicting the most certain of all our experiences, that namely of the unity of the self, can be based.

What is the alternative hypothesis to this? It is the supposition that all the physical components of the individual, systematised by the principle of self-conscious energy which constitutes him a person, should enter, not merely into an accidental, but into a substantial union. The person is not a collection of entities, but a single and undivided unity. Nevertheless, though essentially one

¹ Cf. chap. IV.

² Cf. McDougall; *An Outline of Abnormal Psychology*, London, 1926.

substance, at all levels of complexity the elementary components and their resultants remain virtually many. A crude indication of this lies in the fact that, though it is not only visual or aural apparatus, but I myself, who see and hear, yet visual experience is provided only by the visual, and auditory experience only by the aural apparatus; and if either of these should be destroyed neither visual nor auditory experience is further possible. Virtually these organs act autonomously, as do all the other organs of the body. One may say the same for every individual cell that enters into the constitution of tissues and organs; and even, if the view of matter as merely energetic is acceptable, of every elementary physical energy-component as well. This view brings all the abnormal and pathological phenomena into line with the normal; and, it is submitted, more satisfactorily than any other accounts for all the phenomena of mental life.

¶ 18. ALTERATIONS IN LEVEL OF THRESHOLD. With regard to alterations in the level of the threshold, it can only be said that these in fact occur, whether we can give reasons for their occurrence or not. But the shrinkages of consciousness in the morbid conditions of hysteria and its expansions in the abnormal state of hypnosis, taken in conjunction with a number of normal phenomena like the automatisations of once conscious processes in acquired habits which are thereafter performed semi-consciously or even unconsciously, point the way to an exceedingly interesting line of speculation. Throughout life we are

continually delegating to lower levels of subconsciousness and unconsciousness, to lower centres of purposeful activity, the performance of actions originally fully conscious and fully purposive. The more perfectly an action is practised the less it needs guidance by conscious thinking. This, and many similar facts, seem to indicate a law of mental parsimony the operation of which leaves conscious energy free for further advance. May this not be a universal law of extreme evolutionary importance? May it not indicate that, at more primitive stages of the development of the race, instinctive behaviour was consciously directed throughout, and became delegated to the unconscious only when conscious energy was needed elsewhere in the service of evolution? May this not have been the history also of purposeful physiological activity even of the most rudimentary kind? May not each stage have been marked by a rising threshold beneath which conscious striving sank in the form of unconscious experience and habit? At the stage human beings have at present reached the normal threshold would have been determined by this process at a level appropriate to our actual development, thus leaving our limited amount of conscious energy available for the practical direction of the affairs of our every-day life; while previous consciousnesses were registered in the form of stored experience in the organs, cells and elements of our bodies, all of which show evidence of purposeful activity which at least simulates conscious purpose. If this were so, we could describe the lowered level of the threshold in hypnosis as the conscious reactivation of a layer of experi-

ence which once was but now no longer is consciousness; while the constricted consciousness of the hysteric would be due to a failure of mental energy and a consequent incapacity on the part of certain experiences to rise above the threshold.

¶ 19. RELATION OF PERSONALITY TO WILL. It remains only to summarise the chief features emerging from our examination of personality and to relate them definitely to the human will.

Personality is an abstract term which denotes the essential constitutive or constitutives of a person. It is that in virtue of which an individual is a self-conscious being, with all that self-consciousness implies. It is not, however, the fact of being self-conscious which constitutes the person; for this is a consequence rather than the cause of being one; it only manifests personality. Now, the only person with whom each one of us is in immediate contact, and of whom he has intuitive knowledge, is himself; and it is precisely in the reflective contemplation of himself that he is self-conscious. For the self and its objects alike are known and distinguished from one another in the immediacy of actual living, feeling, knowing and willing. Each one of us, moreover, infers other selves, and believes in their existence and essential similarity, on the ground of his experience of them as phenomenal objects and of himself as an apprehended object which is absolutely identical with itself as apprehending subject. This, as has been shown, is the fundamental fact of experience; but, even if it were not so,

we should logically be obliged to postulate a subject of experience in order to account for the occurrence of experience at all.

¶ 20. PRINCIPLE OF PERSONALITY. What is it that constitutes an individual as a self-conscious being? Clearly, it is some intrinsic principle which can account for the power of the immediate intuition of the self in its acts which was discussed at length in chapter v. Such a principle, we have argued, is a substance, or actuality existent in itself, which is capable of energising in various ways; and among the chief of these are cognising, knowing and willing.

¶ 21. KNOWING. Of recent years all the kinds of original knowing have been summed up under three noegenetic principles or laws, which in fact account for the occurrence of all human knowledge. Once originated, alterations without doubt occur in our knowledge; but these are no more than variations in its clearness, together with the disappearance and the recall of items of knowledge which were known before. Such processes originate no knowledge; whereas the processes due to the noegenetic principles do. The latter have been enunciated as follows.¹ (1) Any lived experience tends to evoke immediately a knowing of its characters and experiencer. (2) The mentally presenting of any two or more characters (simple or complex) tends to evoke immediately a knowing of relation between them.

¹ Cf. Spearman; *The Nature of Intelligence and the Principles of Cognition*. Cf. also *Creative Mind*, by the same author, in this "Library."

(3) The presenting of any character together with any relation tends to evoke immediately a knowing of the correlative character. These three tendencies towards knowing our experience and ourselves as experiencers, the relations obtaining between the characters or items of our experience, and the items or characters in any way correlated with experience, are at the basis of all our intellectual operations whatever. But there is a further tendency of no less importance both for knowing and willing. This is the tendency to abstract the characters, relations, and correlates from their concrete settings in experience and to hold them before the mind in an ideal manner. This tendency also is at the basis of our intellectual operations; and it is upon its working together with that of the other three that volition, at any rate in its conscious form, depends.

¶ 22. WILLING. *Nihil volitum quin praecognitum.* Nothing is willed unless it is foreseen. We can only will when we ideally anticipate the consequences of our willing. We must know what we will, either by perceiving here and now something to be in some way altered by our action, or by remembering something experienced in the past which can be made the object of our willing in the present, or by conceiving as a correlate of actual experience something we have never yet experienced in order by willing to realise it. Preperception, or preconception, is a necessary antecedent of every act of will. The adage is a commonplace. But it does not exhaust the situation. In the strict sense of the term we cannot will unless we know not only our objective


experience together with the relations obtaining within it and the correlates derived from it, but ourselves also and the relations in which we stand to our experience. For conscious volition always brings about changes in experience, and accordingly implies a change also in the relations obtaining between that experience and the self. We thus need all three noegenetic principles, as well as the power of abstraction, to account for the simplest act of will.

¶ 23. KNOWING AND WILLING PERSONS. On the other hand, however, were we merely intelligences capable of knowing ourselves, our experiences, the relations between them, and the correlates of them, it does not follow that we should be in any way able to bring about changes in experience or in our relations to it. We should be able only to contemplate but never to influence these. Will, accordingly, is a definite aspect of the person other than intelligence, and can be conceived as an even more fundamental aspect than this; since by willing we alter, at least within limits, the course of our experience. Moreover, as we have seen,¹ there is a real sense in which we can speak of will, not only as operative in conscious and instinctive behaviour, but even in unconscious mental and organic activity as well; and the operation of this unconscious will brings about changes in experience also. The essential orientation of living organisms towards their natural goals can be taken, on analogy with our own conscious willing, as evidence of unreflective, semi-conscious, or even of totally unconscious will.

¹ Cf. chapter VIII.

From this angle we should look upon the intrinsic principle which constitutes a person as a self-conscious will provided with an intelligence to be used as an instrument for the securing of its ideally conceived ends by the choice of appropriate means; or, better, the intrinsic principle of personality is simply intelligent will. The dynamic aspect of personal life, indeed of life in general, should here be stressed as much as possible. We are not mere idle spectators, passively contemplating ourselves and the continually unrolling panorama of our experience. We are essentially busy with our experience and with ourselves; we are performers on the stage of actual life and living. From this dynamic point of view we must interpret all behaviour; and, accordingly, we may look upon all living organisms as fundamentally consisting of wills at different levels of cognitive evolution. At lower levels the will is sensorial or even unconscious. On the level of full self-consciousness it is intellectual or rational. Thus we may assimilate human beings to all other living organisms in respect of the fundamental attribute of life. Like them, we are absolutely determined in our essential orientation towards a goal; but unlike them, being intelligent, we are free with regard to the means we shall adopt in order to pursue that goal.

In the strictest meaning of the term, then, a person is an individual, incommunicably existing in himself, who is not merely will, or energy elicited by goals and determined by motives, but an intelligent will contemplating means to ends and making its own motives.



INDEX

- ABSTRACTION (-s) (or abstract ideas, etc.), 26, 80, 123, 128, 140, 144-145, 149, 163-168, 174, 195-201, 209-212, 223, 240-241
 Ach, 79, 84-89, 97, 100-101, 161-162
 Action, consciousness of, 97, 199
 Activity (-ies), 1 ff, 63-64, 213
 Alertness, 92, 97
 Amnesia, 216-227
 Anaesthesia, 19, 21
 Animal behaviour, 78-79, 104-106
 Animism, 27-28, 36, 200-202
 Anthropomorphism, 36-38
 Antimony (-ies), 28, 30, 35, 39-41, 56
 Apperception, 73
 Aquinas, 1, 40-42
 Arch-types, 139, 146
 Aristotle, 30-34, 224
 Association, laws of, 54, 56, 59, 67-77, 83, 115-117, 137, 190, 211, 217, 227-228
 Associative equivalent, 83
 Attention, 13, 76, 85-86, 158, 219
 Augustine, 40-42, 45, 60

 BACON, 44
 Bain, 67
 Behaviourism, 75, 76, 114-116
 Berkeley, 56-57
 Berman, 154
 Biran, Maine de, 59-60
 Blind spot, 20
 Burt, 157

 CALVIN, 43
 Cannon, 153
 Character, 78, 99, 103, 141, 147, Chap. VIII, 161, 210, 216-218, 224, 228, 235
 Children (and the child), 4, 27-28, 78-79, 104-105, 111-113, 200
 Choice, 31-33, 41, 43, 68-69, 72-73, 78, 80-81, 88, 91, 93-96, 126-127, 134, 136, 142, 146, 193, 194, 199-206, 226
 Christianity, 34-35, 40
 Clearness, 13, 22, 232

 Coenaesthesia (-etic), 69, 180
 Complex (-es), 13, 170
 Comte, 66
 Conation, experiments on, 158-159
 Conative control, 88-89, 153, 160, 165, 192
 Conflict (-s), 82, 217
 Correlates, 27, 144-145, 198, 201, 240-241

 DEFINITION of personality, 214
 Dematerialisation, scientific, 172
 Descartes, 44-47, 54-57, 60-61, 66, 106
 Determining tendency, 83-85, 88, 101, 161, 228-229
 Determinism, 7-8, 28, 34-35, 42, 53, Chap. x
 Dewey, 80
 Dispositions, 13, 23, 64, 123, 152, 156, 159, 162-165, 211
 Dissociation, 3, 222
 Doubt, universal, 45
 Dreams, 23, 197, 219
 Dualism, dualistic theory, etc., 173-178, 223-225; as suggested solution, 186
 Dürr, 80
 Dynamic view, 211
 Dynamism, 70

 EGO, 68, 70, 71
 Eleatics, 29
 Endocrine glands, 152-157
 Epicurus (and epicureans), 35, 42, 189
 Epiphenomenon (-alism), 175, 220, 222
 Estimates, method of, 79, 97
 Ethics, 6, 7, 25, 29-32, 42, 47, 53, 194, 207
 Experience, 7, 9, 10, 17, 26-27, 30, 35, 36, 38, 41, 44, 45, 49, 70, 71, 77, 176-178, 183-184, 187, 189-192, 198, 200, 205, 207, 215, 225-226, 231-242

 FABRE, 119
 Fatigue, 159-160

- "Fiat," 14, 76
 Fichte, 61
 Finality, 133
 Formalism, 115
 Freedom (of choice or will), 30, 33-35,
 42-45, 52, 56, 61, 69, 80, Chap. x

 GALEN, 150
 General mental ability, 100, 103, 155,
 157
 Gestalt school, 115
 Geulincx, 56
 God, 34-48, 145, 198
 Grimberg, 157

 HABIT (and habits), 13, 60, 86, 149,
 160-166, 171, 190, 194, 206, 208,
 210, 216, 223, 236-237
 Hartley, 56
 Henry of Ghent, 43
 Heracleitos, 30
 Heredity, 119
 Heymans, 100-101, 153
 Hormic psychology, 64, 211
 Hume, 55-58, 66-67, 190
 "Humours," 150, 156
 Hyperaesthesia, 234
 Hypnosis (or hypnotism), 4, 14, 23,
 216, 218-219, 227-237

 IDEALS, Chap. vii; idealism, 175
 Identity, 49, 50, 214-215, 224
 Immanence, 11 ff.
 Individual differences, 149
 Inference (relational), 25
 Insight, 6, 31, 116-117, 121-122, 137,
 140, 176, 204
 Instinct (instinctive tendencies, actions,
 etc.), Chap. vi, 53, 62, 64, 68, 78,
 102, 126-127, 130-147, 156-168,
 192-193, 200, 205-214, 226, 237, 241
 Introspection, 16, 20-21, 33, 40, 50,
 53-54, 74, 76, 79-81, 86, 93-95, 102,
 135, 140, 181, 184, 194, 199, 205-
 206, 213
 Intellectualism, 31
 Interactionism, 174-175, 223
 Intuition, 6, 21, 60, 63, 180-182, 186,
 190, 203, 238-239
 Ionics, 29

 JAMES, Wm., 19, 33-77, 89, 228
 Jennings, 106-107
 Jung, 154

 KANT, 56, 66
 Kinaesthesia, 66, 69
 Knowledge, perceptual and conceptual
 contrasted, 46; conceptual, 182;
 reflex, 183
 Köhler, 112, 116, 121

 LANGUAGE, 140, 170, 219
 Lankes, 101, 163, 164, 207
 Law, 6, 7; notion of, 201-202
 Learning, 112-116, 120
 Leibniz, 56, 65-62
 Locke, 44, 48-61, 66
 Lossky, 80
 Luther, 43

 MCCARTHY, 84-85
 McDougall, 113, 152, 235
 Malebranche, 56
 Masson disc, 158
 Materialism (-ist), 175-178, 220
 Mental energy, limited, 22, 231
 Michotte, 79, 81, 89, 93, 97
 Molinists, 43
 Monads, 61, 235
 Monism, 173-178, 220, 223
 Moore, 155
 Morality, 6, 7, 29
 Motivation, 95-96
 Motives, 100, 126, 132, 135, 141-147,
 160-162, 167, 194-200, 205-208, 242
 Müller, 100, 153

 NECESSITY, 201
 Needs, 142-143
 Noegenesis, 36-37, 239, 241
 Noetic qualities, 148

 "ONTOLOGICAL argument," 37
 Ontology, 30, 194
 Orectic qualities, 148; orectic life, 154
 Oscillation, 158-160, 165, 169

 PANPSYCHISM, 51
 Parallelism, 175, 227
 Parmenides, 30
 Parsimony, mental, 237

Pathology (pathological cases, phenomena, etc.), 2, 212, 215-216, 227, 230-236
 Pauline teaching, 43
 Pavlov, 115
 Peckham, 108
 Perseveration (perseverative tendency) 100-103, 153, 156-157, 165, 169
 Personalities (dual, multiple, alternating), 2, 216-235
 Phenomenalism, 19, 66
 Philpott, 159
 Plato, 30-31
 Plasticity, 109, 113, 118, 120
 Pluralism, 63
 Pneumograms, 91-95
 Positive power, notion of, 10
 Positivists, 66
 Predestination, 39-43
 Preperception and preconception, 240
 Principles of fusion, 70-72; of poeogenesis, 239-245; of personality, 239-242; of psychology, 9, 213; self-conscious, 224-225
 Psychoanalysis (-ist), 64-65, 232
 Psychogalvanometer, 91-96, 146
 Ptolemy, 170
 Purpose, 10, 13, 24, 27, 62, 106-110, 118, 130, 200, 226, 232, 237

 REALITY, external, 26, 192, 203
 Recollection, 13
 Reflexes, native, 12, 47, 116, 185; conditioned, 12, 114-115
 Reformation, 43
 Religion, 6, 7, 28, 134
 Renaissance, 43
 Responsibility, 3 ff., 31
 Ruedeger, 166-167

SCEPTICISM, 56
 Scholastics, 42-43
 Schopenhauer, 61-63
 Scotus, 43
 Self, 1, 15-17, 20-22, 24, 38, 44-45, 47, 49, 55-62, 69-70, 74, 87-88, 97, 101-103, 128-132, 169, 173, 178, 180-187, 190-192, 199, 200-204, 212-214, 217-218, 221-222, 225, 232, 235, 238-239, Chap. IX

Sentiment, 78, 125, 149, 165-166, 210-214, 223, 226, Chap. VII
 Sleep, 19, 21, 23-24, 233
 Socrates, 30-32
 Sophists, 30
 Spearman, 25
 Spinoza, 56
 Spiritualism (-ist), 175-178, 223; spiritual world, 139
 Spontaneity, 119
 "Spread," 164-166
 Stevenson, R. L., 216
 Stimuli, liminal, 232
 Stoics, 34, 42
 Subconscious conation, 23
 Subconsciousness, 22
 Sublimation, 146
 Suggestion (post-hypnotic), 4
 Supplementation, 179
 Syndromes, psychoneurotic, 155
 Synthesis, creative, 71
 Systematisation of knowledge, 26

TACHOGRAM, 92
 Teleology, 10, 41, 46, 63, 129, 133, 200, 226
 Telepathy, 231 (footnote).
 Temperament (-s), 170, 210, Chap. VIII
 Thorndike, 112, 120
 Threshold, 232-238
 Transience, 11 ff.
 Trial and error, 120, 122, 137
 Tropism, 106, 200

ULTRADUALISM, 173-176
 Unconscious (The), 14-15, 61-65, 234-236
 Unconscious activity, 12-15, 63; will, 127, 132-135, 142, 241
 Uniformity of Nature, 193, 204
 Unity and continuity of phenomena and consciousness, 17-22

VALUES, Chap. VII, 208
 Vegetative functions, 213, 226

WEBB, U., 99-101, 158, 161-163, 167, 207
 Wiersma, 100, 153
 Wundt, 70-79